QL
S47
.B8
v. 11

HARVARD UNIVERSITY.

LIBRARY

OF THE

MUSEUM OF COMPARATIVE ZOÖLOGY.

14,273.

Exchange.

November 11, 1912.

CATALOGUE

OF THE

LEPIDOPTERA PHALÆNÆ

LIBRARY
CAMBRIDGE, MASS.

IN THE

BRITISH MUSEUM.

VOLUME XI.

LONDON:
PRINTED BY ORDER OF THE TRUSTEES.
1912.

(*All rights reserved.*)

LIBRARY
MUS. COMP. ZOOLOGY
CAMBRIDGE, MASS.

CATALOGUE

OF THE

NOCTUIDÆ

IN THE

COLLECTION

OF THE

BRITISH MUSEUM.

BY

SIR GEORGE F. HAMPSON, BART.

LONDON:
PRINTED BY ORDER OF THE TRUSTEES.
SOLD BY
LONGMANS & Co., 39 PATERNOSTER ROW E.C
B. QUARITCH, 11 GRAFTON STREET, NEW BOND STREET, W.
DULAU & Co., LTD., 37 SOHO SQUARE, W.
AND AT THE
BRITISH MUSEUM (NATURAL HISTORY), CROMWELL ROAD, S.W.
1912.

QL
542
.B4
v.11

PRINTED BY TAYLOR AND FRANCIS,

RED LION COURT, FLEET STREET.

PREFACE.

—o—

The subject of Vol. XI. of the 'Catalogue of Moths' is the classification of the Noctuid subfamilies *Euteliancæ*, *Stictopterinæ*, *Sarrothripinæ*, and *Acontiancæ*.

The *Euteliancæ* are represented in the present work by 12 genera and 175 species, and are characterised as follows:—Vein 5 of the hind wing is fully developed and arises from close to the angle of the cell; the frenulum of the female is simple, formed of conjoined bristles as in the male of other *Noctuidæ*, and the abdomen has paired lateral anal tufts of hair or sometimes a long tubular tuft.

The *Stictopterinæ*, with 10 genera and 112 species, are similar, but the abdomen is without the paired lateral or tubular anal tufts and the fore wing has small tufts of raised scales in the cell.

The *Sarrothripinæ*, with 58 genera and 330 species, have the frenulum of the female multiple, the retinaculum of the male in the form of a corneous bar; the fore wing has small tufts of raised scales in the cell.

The *Acontiancæ*, with 70 genera and 324 species, are similar to the *Sarrothripinæ* but are without the raised tufts of scales on the fore wing; in some genera and species the bar-shaped retinaculum of the male has been lost and the retinaculum is formed by a tuft of hair just below the median nervure as in the females of other

Noctuidæ; in three genera vein 5 of the hind wing is somewhat aborted from below the middle of the discocellulars and in these the larvæ are semiloopers with the first two pairs of abdominal prolegs absent, whilst in all the other forms of the four subfamilies the four pairs of abdominal prolegs are present.

The four subfamilies are modifications of the great Quadrifid section of the *Noctuidæ* and are almost confined to the tropical and warmer temperate regions, few genera and species extending to the colder zones, and none to the Arctic and Alpine zones.

Sir George Hampson has to acknowledge the assistance which he has received, mostly from those whose help has been referred to in earlier volumes of the Catalogue, by the loan of types and specimens, and in other ways.

The coloured drawings which have been made for him from types of species which are not in the collection of the British Museum, and of which he has been unable to examine specimens, have been reproduced and are severally acknowledged in the text.

The Plates published in connection with this volume are numbers CLXXIV.–CXCI., part of Plate CLXXIV. referring to Vol. X. of the Catalogue.

SIDNEY F. HARMER,
Keeper of Zoology.

British Museum (Natural History),
February 9th, 1912.

SYSTEMATIC INDEX.

	Page
Fam. NOCTUIDÆ (continued)	1
Subfam. EUTELIANÆ.....	1
Pacidara, *Wlk.*.....	3
6198. venustissima, *Wlk.*....	3
Tibiocillaria, *Beth.-Baker*	5
6199. pratti, *Beth.-Baker* ..	5
Bombotelia, *Hmpsn.*	6
6200. nugatrix (*Guen.*)	7
6201. maculata (*Butl.*)	7
6202. dinavaensis (*Beth.-Baker*)	9
6203. aureiplaga (*Beth.-Baker*)	9
6204. dinava (*Beth.-Baker*) .	10
6205. meeci (*Beth.-Baker*) ..	10
6206. jocosatrix (*Guen.*)	11
6207. simplex (*Wlk.*)	12
6208. dorsipuncta, *Hmpsn.* ..	13
6209. lineatrix (*Wlk.*)	14
6210. plumbea (*Wlk.*)	14
6211. oxylopha (*Turner*)	15
Eutelia, *Hübn.*.....	15
6212. distorta, *Hmpsn.*.....	16
6213. sinuosa (*Moore*)	17
6214. ferridorsata, *Hmpsn.* ..	18
6215. leucographa, *Hmpsn.*..	18
6216. tripartita (*Semp.*)	19
6217. fulvipicta, *Hmpsn.*....	20
6218. plusioides (*Wlk.*)	21
6219. abscondens (*Wlk.*)	22
6220. pulcherrima (*Grote*)....	23
6221. blandula (*Herr.-Schäff.*)	24
6222. ablatrix (*Guen.*)	25
6233. cuprea (*Möschl.*)	26
6224. albisecta, *Dogn.*	26
6225. auratrix (*Wlk.*)	27
6226. pyrastis, *Hmpsn.*.....	28
6227. furcata (*Wlk.*).....	28
6228. snelleni (*Saalm.*)	29
6229. gabriela (*Holl.*)	31
6230. instructa, *Wlk.*	31
6231. geyeri (*Feld.*)	32
6232. rivata, *Hmpsn.*.....	34
6233. melanephra, *Hmpsn.* ..	35
6234. chalybsa (*Hmpsn.*)	36
6235. grabczeusci (*Püng.*)....	37
6236. approximata, *Wlk.*	37
6237. dimidiata, *Wlk.*	38
6237 *a.* poliochroa, *Hmpsn.* ..	667
6238. geræa, *Hmpsn.*.....	39
6239. histrio (*Saalm.*)	39
6240. melanopis, *Hmpsn.*....	40
6240 *a.* adroxodes, *Beth.-Baker*	667
6241. albiluna, *Hmpsn.*.....	40
6242. menalcas (*Holl.*)	41
6242 *a.* glaucocycla, *Hmpsn.* .	668
6243. obliquata, *Wlk.*	41
6244. chlorobasis, *Hmpsn.* ..	42
6245. leucodelta, *Hmpsn.*....	42
6246. metasarca, *Hmpsn.*....	43
6247. leighi, *Hmpsn.*.....	43
6247 *a.* malanga, *Beth.-Baker.*	668
6248. pictatrix, *Hmpsn.*	44
6249. favillatrix, *Wlk.*.....	45
6250. adulatrix (*Hübn.*)	47
6251. blandiatrix (*Boisd.*)....	48
6252. amatrix, *Wlk.*.....	49
6253. mesogona, *Hmpsn.*....	50
6254. symphonica, *Hmpsn.* ..	50
6255. diapera, *Hmpsn.*.....	51
6256. quadriliturata, *Wlk.* ..	52
6257. adoratrix (*Staud.*)	52
6258. discistriga, *Wlk.*.....	53
6259. ochreiplaga, *Beth.-Baker*	54
6260. flaviluna, *Hmpsn.*	54
6261. solitaria (*Holl.*)	55

Eutelia (*con.*). Page
6262. nigridentula, *Hmpsn.*.. 55
6263. morosa (*Holl.*) 56
6264. ochricostata, *Hmpsn.* .. 57
6265. cautabasis, *Hmpsn.* 57
6266. subrubens (*Mab.*) 58
6267. vittalba (*Semp.*) 59
6268. polychorda, *Hmpsn.* .. 60
6269. suffundens (*Wlk.*) 61
6270. purpureonigra, *Beth.-Baker* 62
Chlumetia, *Wlk.* 63
6271. lichenosa (*Hmpsn.*) 63
6272. euryptera, *Hmpsn.* 64
6273. duplicilinea (*Wlk.*) 65
6274. hampsoni (*Beth.-Baker*) 65
6275. alternans, *Moore* 66
6276. cana, *Hmpsn.* 67
6277. transversa (*Wlk.*) 68
Patæta, *Wlk.* 68
6278. carbo (*Guen.*) 69
6279. conspicienda, *Wlk.* 69
Phelegetonia, *Guen.* 70
6280. operatrix (*Wllgrn.*).... 71
6281. callichroma (*Dist.*) 72
6282. violescens, *Hmpsn.* 72
6283. holocausta (*Hmpsn.*) .. 73
6284. catephioides, *Guen.* 74
6285. porphyriota, *Hmpsn.* .. 74
6286. cebeæ (*Beth.-Baker*) .. 75
6287. apicifascia (*Hmpsn.*) .. 76
6288. albiapicata (*Hmpsn.*) .. 78
6289. albiceps (*Hmpsn.*) 78
6290. stictoprocta (*Hmpsn.*).. 79
6291. fasciatrix (*Semp.*) 80
6292. scelerata (*Holl.*) 80
6293. strigula (*Holl.*) 81
6294. bifascies (*Wlk.*) 81
6295. delatrix (*Guen.*) 82
6296. atripars, *Hmpsn.* 84
6297. mediofusca (*Beth.-Baker*) 84
Thyriodes, *Guen.* 85
6298. flabellum, *Guen.* 85
6299. dissimilis (*Druce*) 87
Marathyssa, *Wlk.* 88
6300. harmonica (*Hmpsn.*) .. 88
6301. basalis, *Wlk.* 89
6302. angustipennis (*Schaus*) . 90
6303. inficita (*Wlk.*) 90
6304. cuneata (*Saalm.*) 91
6305. albidisca (*Hmpsn.*) 92
6306. cistellatrix (*Wllgrn.*) .. 93
Anigræa, *Wlk.* 93
6307. albomaculata (*Hmpsn.*) 94
6308. ochrobasis, *Hmpsn.* 95

Page
6309. mediopunctata (*Pag.*) .. 95
6310. mediifascia (*Hmpsn.*) .. 96
6311. deleta (*Hmpsn.*) 96
6312. cinctipalpis (*Wlk.*) 97
6313. homochroa, *Hmpsn.*.... 98
6314. viridata (*Beth.-Baker*) . 98
6315. deletoides (*Beth.-Baker*) 99
6316. phæopera, *Hmpsn.* 100
6317. siccata (*Hmpsn.*) 100
6318. rubida, *Wlk.* 101
6319. purpurascens, *Hmpsn.* . 102
Anuga, *Guen.* 102
6320. lunulata, *Moore* 103
6321. japonica (*Leech*) 104
6322. juventa, *Swinh.* 105
6323. multiplicans (*Wlk.*) .. 106
6324. constricta, *Guen.* 106
6325. fida, *Swinh.* 107
Aon, *Neum.* 108
6326. noctuiformis, *Neum.* .. 108
Pæctes, *Hübn.* 109
6327. cebeæ (*Beth.-Baker*) .. 110
6328. psaliphora, *Hmpsn.*.... 110
6329. cristatrix (*Guen.*)..... 111
6330. leucotrigona (*Hmpsn.*) . 112
6331. cyanodes (*Turner*) 112
6332. poliotis (*Hmpsn.*) 113
6333. costistrigata (*Beth.-Baker*) 113
6334. pratti (*Beth.-Baker*) .. 114
6335. fabrica (*Swinh.*) 115
6336. subapicalis (*Wlk.*) 116
6337. devincta (*Wlk.*) 117
6338. fovifera, *Hmpsn.* 118
6339. oculatrix (*Guen.*)..... 120
6340. semicircularis, *Hmpsn.* . 121
6341. chrysoplaga, *Druce* 122
6342. circularis (*Herr.-Schäff.*) 122
6343. curvilinea, *Schaus* 123
6344. flabella (*Grote*) 123
6345. pygmæa, *Hübn.* 124
6346. declinata (*Grote*)..... 125
6347. acutangula, *Hmpsn.* .. 126
6348. abrostoloides (*Guen.*).. 127
6349. fuscescens (*Wlk.*) 127
6350. delineata (*Guen.*)..... 128
6351. lunodes (*Guen.*) .. 129, 669
6352. arcigera (*Guen.*) 130
6353. obrotunda (*Guen.*) 130
6354 nubifera, *Hmpsn.*..... 131
6355. chlorophora, *Hmpsn.* .. 132
6356. phæoplaga, *Schaus* 132
6357. eumicta, *Schaus* 133
6358. nyctichroma (*Hmpsn.*) . 133
6359. endochlora, *Schaus* 134

Page

6360. hæmatosema, *Schaus* .. 135
6361. glauca (*Hmpsn.*) 135
6362. polia (*Hmpsn.*) 136
6363. griseifusa (*Hmpsn.*).... 137
6364. canofusa (*Hmpsn.*) 137
6365. areusa (*Wlk.*) 138
6366. sabulosa (*Schaus*)..... 139
6367. albescens, *Hmpsn.* 139

Subfam. Stictopterinæ . 141

Paralopha, *Beth.-Baker* 142
6368. rubiginea, *Beth.-Baker* . 142
Odontodes, *Guen.* 143
6369. metamelæna, *Hmpsn.*.. 143
6370. aleuca, *Guen.* 144
Stictoptera, *Guen.* 146
6371. fenestra, *Guen.* 146
6372. vitrea, *Guen.* 147
6373. clara (*Cram.*) 148
6374. heterogramma, *Hmpsn.* 149
6375. describeus (*Wlk.*) 149
6376. anæmia, *Hmpsn.* 151
6377. olivascens, *Moore* 151
6378. eceicei (*Beth.-Baker*) .. 152
6379. trajiciens (*Wlk.*) 154
6380. signifera (*Wlk.*) 155
6381. subobliqua (*Wlk.*) 156
6382. timesia, *Swinh.* 157
6383. cucullioides, *Guen.* 158
6384. vitiensis, *Hmpsn.*..... 159
6385. striata, *Hmpsn.* 160
6386. ochrota, *Hmpsn.* 160
6387. griseata (*Hmpsn.*) 161
6388. antemarginata, *Saalm.* . 161
6389. macromma, *Snell.* 162
6390. bisexualis, *Hmpsn.* 163
6391. variegata, *Hmpsn.* 163
6392. semialba (*Wlk.*) 164
6393. grisea, *Moore* 165
6394. melanistis, *Hmpsn.*.... 165
6395. ferrifera (*Wlk.*) 166
6396. atrifera, *Hmpsn.* 167
6397. svinhœi (*Beth.-Baker*) . 167
6398. stygia, *Hmpsn.* 168
6399. albipuncta, *Hmpsn.*.... 169
6400. microthyris, *Hmpsn.* ., 169
6401. multistriata, *Hmpsn.* .. 170
6402. repleta (*Wlk.*) 170
6403. confluens (*Wlk.*) 171
6404. columba (*Wlk.*) 171
Gigantoceras, *Holl.* 172
6405. geometroptera, *Holl.* .. 172
6406. solstitialis, *Holl.* 173
6406 *a*. adoxodes, *Beth.-Baker* 669
6407. rectilinea, *Hmpsn.* 174

Page

Lophoptera, *Guen.* 175
6408. squammigera, *Guen.* .. 177
6409. aleuca, *Hmpsn.* 178
6410. costata, *Moore* 178
6411. methyalea (*Hmpsn.*) .. 179
6412. semirufa, *Druce* .. 179, 669
6413. abbreviata, *Wlk.*..... 180
6414. litigiosa (*Boisd.*) 180
6415. hemithyris (*Hmpsn.*) .. 181
6416. phæobasis (*Hmpsn.*) .. 182
6417. illucida (*Wlk.*)..... 182
6418. leucostriga (*Hmpsn.*) .. 183
6419. huma (*Swinh.*)..... 184
6420. plumbeola, *Hmpsn.* 184
6421. denticulata (*Wlk.*) 185
6422. xista (*Swinh.*) 185
6423. phæoxista, *Hmpsn.* 186
6424. plumbeifascia (*Hmpsn.*). 186
6425. chalybsa (*Hmpsn.*) 187
6426. ferrinalis (*Wlk.*) 187
6427. stipata (*Wlk.*) 188
6428. negretina (*Hmpsn.*).... 189
6429. luctuosa (*Hmpsn.*) 189
6430. quadrinotata (*Wlk.*) .. 189
6431. pustulifera (*Wlk.*) 190
6432. chalybea (*Wlk.*) 191
6433. metaphæa (*Wlk.*) 191
6434. meeci (*Beth.-Baker*) .. 192
6435. rufa (*Beth.-Baker*) 192
6436. buruana (*Holl.*) 192
6437. hypenistis (*Hmpsn.*) .. 193
6438. tripartita (*Swinh.*) 193
6439. acuda (*Swinh.*)..... 194
6440. viridaria (*Swinh.*) 194
6441. glaucobasis (*Hmpsn.*).. 195
6442. chlorograpta (*Hmpsn.*) . 195
Nigramma, *Wlk.* 196
6443. lophophora, *Hmpsn.* .. 196
6444. quadratifera, *Wlk.* 197
6445. longipennis, *Hmpsn.* .. 198
6446. pyraloides (*Wlk.*) 198
6447. subfasciata (*Wlk.*) 199
6448. todara, *Hmpsn.* 199
6449. polymorpha (*Hmpsn.*) . 200
6450. lapidaria (*Wlk.*) 201
6451. perlignealis (*Wlk.*) 201
6452. dialeuca (*Hmpsn.*) 202
6453. purpurascens (*Beth.-Baker*) 202
6454. albicans (*Pag.*)..... 203
Sadarsa, *Moore* 203
6455. longipennis, *Moore* 204
6456. tenuis (*Moore*)..... 204
Nycteola, *Herr.-Schäff.* 205
6457. falsalis (*Herr.-Schäff.*) . 205

Page

Stenosticta, *Hmpsn.* 206
6458. grisea, *Hmpsn.*..... 206
Gyrtona, *Wlk.* 207
6459. arcuata (*Hmpsn.*) 207
6460. cristipennis, *Hmpsn.* .. 208
6461. lophota, *Turner* 209
6462. inclusalis, *Wlk.* 209
6463. semicarbonalis, *Wlk.* .. 210
6464. acisalis (*Wlk.*) 211
6465. niveivitta, *Swinh.* 212
6466. ferriceps, *Hmpsn.* 212
6467. hylusalis, *Wlk.* 213
6468. oxyptera, *Hmpsn.* 213
6469. erebenna, *Mab.* 214
6470. nama, *Swinh.* 215
6471. exsicca, *Swinh.*..... 215
6472. ochreographa, *Hmpsn.* . 216
6473. phæozona, *Hmpsn.* 216
6474. divitalis, *Wlk.*..... 217
6475. plumbisparsa, *Hmpsn.* . 217
6476. polionota, *Hmpsn.* 217
6477. proximalis, *Wlk.*..... 218
6478. atribasalis, *Hmpsn.* .. 219

Subfam. SARROTHRIPINÆ. 220

Etanna, *Wlk.* 224
6479. maccvoodi (*Hmpsn.*) .. 225
6480. atrifasciata (*Hmpsn.*) .. 225
6481. basalis, *Wlk.* 225
Microthripa, *Hmpsn.* 226
6482. bœota (*Turner*) 226
Hesperothripa, *Hmpsn.* 227
6483. dicyma, *Hmpsn.* 227
Garella, *Wlk.* 227
6484. rotundipennis, *Wlk.* .. 228
6484 *a*. nephelota, *Hmpsn.* .. 670
6485. nubilosa, *Hmpsn.* 228
Characoma, *Wlk.*..... 229
6486. curiosa (*Swinh.*) 229
6487. vallata (*Meyr.*) 230
6488. scoparioides (*Wlk.*).... 230
6489. nilotica (*Rogenh.*)..... 231
6490. albulalis, *Wlk.*..... 232
6491. sexilinea (*Beth.-Baker*) . 232
6492 metalophota (*Hmpsn.*) . 233
6493. distincta (*Beth.-Baker*). 234
6494. glaucopasta, *Hmpsn.* .. 235
6495. multilinea(*Beth.-Baker*) 235
6496. phæoleuca, *Hmpsn.*.... 236
6497. ruficirra (*Hmpsn.*) 236
6498. glaphyra (*Holl.*) 237
6499. polia (*Hmpsn.*) 237
6500. miophora, *Hmpsn.* 238
6501. cana (*Hmpsn.*)..... 238
6502. deleta (*Hmpsn.*) 239

Page

6503. ferrigrisea (*Hmpsn.*) .. 239
Dilophothripa, *Hmpsn.*..... 239
6504. chrysorrhœa, *Hmpsn.* .. 240
6505. lobata, *Hmpsn.* 240
6506. alopha, *Hmpsn.* 241
6507. brachytorna, *Hmpsn.* .. 242
6508. olivia, *Hmpsn.*..... 242
Symitha, *Wlk.* 243
6509. indicatana (*Wlk.*) 243
6510. nolalella, *Wlk.*..... 244
Pardasena, *Wlk.* 245
6511. virgulana (*Mab.*)..... 245
6512. verna (*Hmpsn.*) 246
6513. miochroa (*Hmpsn.*).... 246
6514. minorella, *Wlk.* 247
6515. rœselioides (*Wlk.*) 247
6516. lativia, *Hmpsn.* 248
6517. punctata, *Hmpsn.* 248
6518. atripuncta, *Hmpsn.*.... 249
6519. melanosticta, *Hmpsn.*.. 249
Apothripa, *Hmpsn.* 249
6520. albonotata (*Hmpsn.*) .. 250
6521. binotata, *Hmpsn.*..... 250
6522. iphida (*Swinh.*) 251
Nanaguna, *Wlk.* 251
6523. breviuscula, *Wlk.* 252
6524. brunnea, *Hmpsn.*..... 253
6525. albisecta, *Hmpsn.* 254
6526. vittalis (*Wlk.*) 255
6527. basalis (*Moore*) 255
6528. clopæa (*Turner*) 256
6529. variegata (*Hmpsn.*).... 256
6530. erastioides (*Wlk.*) 257
6531. florida (*Wlk.*) 257
6532. herbida (*Wlk.*)..... 258
Lophothripa, *Hmpsn.*..... 258
6533. vitea (*Swinh.*) 259
Chloethripa, *Hmpsn.* 259
6534. chlorana (*Hmpsn.*) 260
Mniothripa, *Hmpsn.*..... 260
6535. lichenigera (*Hmpsn.*) .. 261
Sarrothripus, *Curtis*..... 261
6536. malachitis, *Hmpsn.*.... 263
6537. virescens (*Hmpsn.*).... 264
6538. musculana (*Ersch.*).... 264
6539. revayana (*Scop.*) 265
6540. coreana (*Leech*) 266
6541. parvella (*Wlk.*) 267
6542. symmicta (*Turner*) 267
6543. indica (*Feld.*) 268
6544. strigivenata (*Hmpsn.*).. 268
6545. cana, *Hmpsn.* 268
6546. grisea (*Hmpsn.*) 269
6547. sinuosa (*Moore*) 269
6548. minuta (*Turner*) 270
6549. exophila (*Meyr.*) 270

Page
6550. brunneicosta (*Beth.-Baker*) 271
6551. mauritia (*de Joan.*) 271
6552. mesoplaga (*Hmpsn.*) .. 272
6553. crystallites (*Meyr.*) 272
6554. poliophæa (*Hmpsn.*) .. 273
6555. aroa (*Beth.-Baker*) 273
6556. avola (*Beth.-Baker*) .. 274
6557. cebea (*Beth.-Baker*) .. 274
6558. bœopis (*Turner*) 275
6559. abstrusa (*Turner*) 275
Giaura, *Wlk.* 276, 670
6560. repletana, *Wlk.* 276
6560 *a*. bostrycodes (*Beth.-Baker*) 670
6561. niveidisca (*Hmpsn.*) .. 278
6562. niphea (*Hmpsn.*) 278
6563. pura (*Beth.-Baker*) 279
6564. ougarra (*Beth.-Baker*).. 279
6565. apicalis (*Hmpsn.*) 280
6566. lichenosa (*Hmpsn.*).... 280
6567. leucotis (*Hmpsn.*) 281
6568. niphostola, *Hmpsn.*..... 281
6569. leucophæa, *Hmpsn.*..... 282
6570. minor (*Hmpsn.*) 282
6571. sceptica (*Swinh.*)..... 283
6572. tortricoides (*Wlk.*) 283
6573. punctata (*Lucas*) 284
6574. venalis (*Beth.-Baker*).. 285
6575. nigrescens (*Beth.-Baker*) 285
6576. robusta (*Moore*) 286
Ptisciana, *Wlk.* 286
6577. seminivea, *Wlk.* 286
Clettharina, *Hmpsn.* 287
6578. nitens, *Hmpsn.*..... 287
Lamprothripa, *Hmpsn.* 288
6579. lactaria (*Græs.*) .. 288, 671
6580. orbifera (*Hmpsn.*) 289
6581. hampsoni (*Wileman*) .. 290
6582. arcuosa (*Beth.-Baker*).. 290
6583. scotia (*Hmpsn.*) 291
Asinduma, *Wlk.* 292
6584. exscripta, *Wlk.* 292
6585. olivana (*Swinh.*) 293
6586. elæota, *Hmpsn.* 293
Selepa, *Moore* 294
6587. stigmatophora (*Hmpsn.*) 294
6588. nigralba (*Hmpsn.*) 296
6589. leucograpta, *Hmpsn.* .. 296
6590. violescens, *Hmpsn.* 296
6591. rufescens, *Hmpsn.* 297
6592. ferrofusa (*Hmpsn.*) 297
6593. celtis, *Moore*..... 298
6594. ænescens, *Moore* 299
6595. plumbeata, *Hmpsn.* 299
6596. transvalica, *Hmpsn*..... 299

Page
6596 *a*. ianthina (*Beth.-Baker*) 671
6597. rhythmopis (*Turner*) .. 300
6598. geræa (*Hmpsn.*) 300
6599. cumasia, *Hmpsn.*..... 301
6600. rabdota (*Hmpsn.*) 301
6601. discigera (*Wlk.*) 302
6602. leucogonia (*Hmpsn.*) .. 302
6603. circulella (*Wlk.*) 303
6604. molybdea, *Hmpsn.* 303
6605. docilis, *Butl.*..... 304
6606. nephelozona (*Hmpsn.*).. 304
Plotheia, *Wlk.* 305
6607. decrescens (*Wlk.*) 305
Tathothripa, *Hmpsn.* 307
6608. continua (*Wlk.*) 308
Cryptothripa, *Hmpsn.* 309
6609. occulta (*Swinh.*) 309
6610. polyhymnia (*Hmpsn.*).. 310
Bryothripa, *Hmpsn.*..... 310
6611. miophæa, *Hmpsn.* 310
Bryophilopsis, *Hmpsn.*..... 311
6612. orientalis, *Hmpsn.* 311
6613. griseata, *Hmpsn.*..... 313
6614. rœderi (*Stndf.*)..... 313
6615. lunifera, *Hmpsn.*..... 314
6616. nesta (*Bainbrigge-Fletcher*)..... 314
6617. hamula (*Snell.*)..... 315
6618. tarachoides, *Mab.* 315
6619. curvifera, *Hmpsn.* 316
6620. cometes, *Hmpsn.*..... 316
6621. anomoiota (*Beth.-Baker*) 317, 671
Ochrothripa, *Hmpsn.* 317
6622. leptochroma (*Turner*).. 318
Phæothripa, *Hmpsn.* 318
6623. morena (*Swinh.*) 318
Megathripa, *Hmpsn.* 319
6624. rufimedia (*Hmpsn.*).... 319
Œdicraspis, *Hmpsn.*..... 320
6625. subfervida, *Hmpsn.*..... 320
Arachnognatha, *Hmpsn.*..... 321
6626. meterythra, *Hmpsn.* .. 321
6627. metascotia, *Hmpsn.* .. 322
Petrinia, *Wlk.* 323
6628. lignosa, *Wlk.* 323
Triorbis, *Hmpsn.* 324
6629. aureovitta, *Hmpsn.*..... 324
6630. annulata (*Swinh.*) 325
Eligma, *Hübn.*..... 326
6631. lætepicta, *Oberth.*..... 326
6632. duplicata, *Auriv.*..... 327
6633. hypsoides (*Wlk.*) 328
6634. malagassica, *Roths.* .. 329
6635. narcissus (*Cram.*) 330
6636. orthoxantha, *Lower* .. 331

Page

Lophosema, *Hmpsn.* 332
6637. purpurascens, *Schaus*... 332
Poliothripa, *Hmpsn.* 333
6638. ameria (*Druce*) 333
Pucialia, *Wlk.* 334
6639. argentea (*Wlk.*) 335
6640. furcifera, *Wlk.*..... 335
6641. mariva (*Dogn.*) 336
6642. chlorographa, *Dogn.* .. 337
6643. poliopepla (*Hmpsn.*) .. 337
6644. rectilinea, *Dogn.*..... 338
6645. purissima (*Dyar*) 338
6646. similis (*Druce*) 339
Gadirtha, *Wlk.* 339
6647. trichocera, *Hmpsn.*..... 340
6648. pulchra, *Butl.*..... 341
6649. glaucographa, *Hmpsn.*.. 342
6650. exacta, *Semper* 343
6651. turneri (*Beth.-Baker*).. 344
6652. costipallens, *Beth.-Baker*) 344
6653. candezei, *Druce* 345
6654. inexacta, *Wlk.*..... 345
6655. cerussata (*Feld.*) 347
6656. aroa, *Beth.-Baker* 347
6657. hades, *Lower* 348
6658. cuprescens, *Hmpsn.*.... 348
6659. elongata (*Hmpsn.*) 349
6660. poliochroa, *Hmpsn.* .. 350
Casandria, *Wlk.* 350
6661. ferrocana (*Wlk.*)..... 351
6662. nigropuncta (*Druce*) .. 351
6663. melanographa, *Hmpsn.* 352
6664. amplipennis, *Hmpsn.*.. 353
6665. olivaris, *Dyar* 354
6666. chlorotica, *Schaus* 355
6667. purpurascens, *Schaus* .. 355
6668. abseuzalis (*Wlk.*) 356
6669. arcuata, *Schaus* 357
6670. metaphæa, *Hmpsn.*.... 358
6671. chirica, *Schaus*..... 358
6672. steniptera, *Schaus* 359
6673. aræa, *Schaus* 359
6674. hæmatopis, *Hmpsn*.... 359
6675. filifera (*Wlk.*)..... 360
6676. stroca (*Schaus*) 361
6677. elota (*Möschl.*) 361
6678. leucopis, *Schaus* 362
Iscadia, *Wlk.* 362
6679. nigra, *Schaus* 362
6680. aperta, *Wlk.* 363
6681. ducinfieldia (*Schaus*) .. 364
6682. variegata, *Druce*..... 364
6683. producta (*Dogn.*)..... 365
6684. bucleyi (*Druce*) 366

Page

6685. diopis, *Hmpsn.* 366
6686. phæoptera, *Dogn.* 367
Ochthophora, *Turner* 368
6687. sericina, *Turner* 368
Elesma, *Wlk.* 369
6688. subglauca, *Wlk.* 369
Elæognatha, *Hmpsn.* 370
6689. phæostrota, *Hmpsn.* .. 370
6690. argyroleuca, *Hmpsn.* .. 371
6691. troctopera, *Schaus* 371
6692. argentea, *Schaus* 372
6693. nitescens (*Druce*) 373
6694. argyritis, *Hmpsn.* 373
6695. purpurascens, *Druce* .. 374
6696. melanosticta, *Druce* .. 374
6697. cacaonis, *Druce* 375
Steniscadia, *Hmpsn.* 376
6698. poliophæa, *Hmpsn.*..... 376
6698 *a*. polyodonta, *Schaus* .. 671
Micriscadia, *Hmpsn.* 377
6699. metachryseis, *Hmpsn.*.. 377
Æschradia, *Hmpsn.*..... 378
6700. mammida (*Druce*) 378
Calathusa, *Wlk.* 379
6701. hypotherma *Lower* 379
6702. ischnodes (*Turner*).... 380
6703. octogesima (*Turner*) .. 380
6704. abebœa (*Turner*)..... 381
6705. subflavida, *Hmpsn.*.... 381
6706. stenophylla (*Turner*) .. 382
6707. basicunea, *Wlk.* 382
6708. dispila (*Turner*) 383
6709. mesospila (*Turner*).... 383
6710. metableta (*Turner*).... 384
6711. eremna (*Turner*)..... 384
6712. delosticha (*Turner*) .. 385
Aquis, *Wlk.* 385
6713. viridisquama, *Wlk.*.... 386
6714. aquisoides (*Swinh.*).... 386
6715. albida (*Wlk.*) 387
6716. orbicularis (*Wlk.*) 387
Barasa, *Wlk.* 388
6717. acronyctoides, *Wlk.* .. 389
6718. cymatistis (*Meyr.*) 390
6719. griseola, *Beth.-Baker*.. 390
6720. alopha, *Hmpsn.* 391
6721. costalis, *Hmpsn.* 392
6722. tetragramma, *Hmpsn.*.. 392
6723. basigerella (*Wlk.*) 392
Labanda, *Wlk.*..... 393
6724. huntei, *Warr.*..... 394
6725. ceylusalis, *Wlk.* 394
6726. chloromela (*Wlk.*) 395
6727. viridalis, *Swinh.* 395
6728. fasciata, *Wlk.* 396

Page

6729. saturalis, *Wlk.* 396
6730. achine (*Feld.*) 397
6731. dentilinea (*Wlk.*) 398
6732. herbealis, *Wlk.* 398
6733. submuscosa (*Wlk.*)..... 399
6734. semipars (*Wlk.*) 399
6735. umbrosa, *Hmpsn.* 400
Blenina, *Wlk.* 401
6736. chrysochlora (*Wlk.*) .. 401
6737. chlorophila, *Hmpsn.* .. 402
6738. lichenosa, *Moore*..... 403
6739. auriculata, *Hmpsn.*.... 404
6740. malachitis, *Hmpsn*..... 405
6741. megei (*Oberth.*) 406
6742. angulipennis (*Moore*).. 407
6743. senex (*Butl.*) 407
6744. fumosa, *Swinh.* 408
6745. metanyctea, *Hmpsn.* .. 409
6746. quinaria, *Moore* 410
6747. obliquinaria, *Hmpsn.* .. 411
6748. chloramelana (*Mab.*) .. 412
6749. smaragdina, *Beth.-Baker* 412
6750. nigrans, *Beth.-Baker* .. 413
6751. varians, *Beth.-Baker* .. 414
6752. solomonis, *Swinh.* 414
6753. miota, *Hmpsn*..... 415
6754. lichenopa (*Meyr.*) 415
6755. diagona, *Hmpsn*..... 416
6756. squamifera (*Wllgrn.*).. 416
6757. ephesioides, *Pag*..... 417
6758. donans, *Wlk.* 418
6759. triphænopsis, *Hmpsn*... 419
6760. metachrysa, *Turner* .. 420
6761. quadripuncta, *Hmpsn.* . 420
6762. amabilis (*Lower*)..... 421
6763. accipiens, *Wlk.* 421
6764. viridata, *Beth.-Baker*.. 422
6765. puloa, *Swinh.* 422
Gryposoba, *Hmpsn*..... 423
6766. catagrapha (*Turner*) .. 423
Risoba, *Moore* 424
6767. sphærophora, *Meyr.* .. 425
6768. repugnans (*Wlk.*) 426
6769. flavipennis, *Hmpsn.* .. 427
6770. vitellina (*Moore*)..... 427
6771. variegata (*Moore*) 428
6772. glauca, *Hmpsn.* 428
6773. jucunda (*Wlk.*) 429
6774. diphtheroides, *Hmpsn.*. 430
6775. chlora, *Hmpsn.* 431
6776. viridata, *Beth.-Baker*.. 431
6777. delicata, *Beth.-Baker*.. 432
6778. pratti, *Beth.-Baker*.... 433
6779. lunata (*Möschl.*) 433
6780. diversipennis (*Wlk.*) .. 434

Page

6781. basalis (*Moore*) 435
6782. cebea (*Beth.-Baker*) .. 435
6783. olivens, *Beth.-Baker* .. 436
6784. literata, *Moore* 437
6785. avola, *Beth.-Baker* 437
6786. prominens, *Moore* 438
6787. grisea, *Beth.-Baker* .. 439
6788. obstructa, *Moore*..... 440
6789. diplogramma, *Hmpsn.* . 441
6790. sticticraspis, *Hmpsn.* .. 442
Macrobarasa, *Hmpsn.* 442
6791. xantholopha (*Hmpsn.*) . 443
6792. xanthosticta (*Hmpsn.*) . 444
Baileya, *Grote* 444
6793. doubledayi (*Guen.*).... 445
6794. ophthalmica (*Guen.*) .. 445
6795. australis (*Grote*)..... 446
6796. dormitans (*Guen.*) 447
6797. levitans (*Smith*) 447
Gyrtothripa, *Hmpsn.* 448
6798. pusilla (*Moore*) 448
6799. microdonta, *Hmpsn.* .. 449
Medava, *Wlk.* 450
6800. diminuens, *Wlk.*..... 450
Stictothripa, *Hmpsn.* 450
6801. grisella (*Schaus*) 451
6802. albescens, *Dogn.*..... 452
6803. delaia, *Schaus* 452
Gyrtonides, *Hmpsn.* 453
6804. albifascia, *Hmpsn.* 453

Subfam. ACONTIANÆ 455

Hyposcota, *Hmpsn.*..... 460
6805. læta (*Wlk.*)..... 461
Cacyparis, *Wlk.* 461
6806. hilaria (*Cram.*)..... 462
6807. elegans (*Butl.*) 462
6808. ceira, *Swinh.* 463
6809. melanolitha, *Turner* .. 463
6810. insolitata, *Wlk.* 463
6811. cyclops, *Hmpsn*..... 464
6812. tenuipalpis (*Snell.*).... 465
Sinna, *Wlk.* 465
6813. atrifusa, *Hmpsn.*..... 466
6814. floralis, *Hmpsn.* 466
6815. dohertyi, *Elwes* 467
6816. calospila, *Wlk.* 467
6817. extrema (*Wlk.*) 468
Gabala, *Wlk.* 469
6818. margarita, *Beth.-Baker* 469
6819. polyspilalis, *Wlk.* 470
6820. argentata, *Butl.* 471
Siglophora, *Butl.* 472
6821. ferreilutea, *Hmpsn.*.... 472
6822. bella, *Butl.* 473

Siglophora (*con.*). Page
6823. cymographa, *Hmpsn.* .. 474
6824. sanguinolenta (*Moore*) 475
6825. hæmatica, *Hmpsn.* 476
Topadesa, *Moore* 476
6826. flammans, *Hmpsn.* 477
6827. sanguinea, *Moore* 477
Chandica, *Moore* 478
6828. quadripennis, *Moore* .. 478
Cossedia, *Wlk.* 479
6829. hyriodes, *Hmpsn.* 479
6830. semiflava (*Hmpsn.*) .. 480
6831. erateinalis, *Wlk.* 481
Leucophanera, *Hmpsn.* 481
6832. argyrozona, *de Joan.* .. 482
Titulcia, *Wlk.* 482
6833. argyroplaga, *Hmpsn.* .. 483
6834. eximia, *Wlk.* 483
6835. confictella, *Wlk.* 484
6836. rufimargo, *Hmpsn.* 484
6837. meterythra, *Hmpsn.* .. 485
Ariolica, *Wlk.* 485
6838. triangulifera (*Moore*) .. 486
6839. lineolata, *Wlk.* 487
6840. pulchella (*Elwes*) 487
6841. chinensis, *Swinh.* 488
6842. superba (*Moore*) 488
6843. argentea (*Butl.*) 489
Cerala, *Moore* 489
6844. punctilineata (*Moore*) .. 490
6845. grisea, *Hmpsn.* 490
6846. decipiens (*Butl.*) 491
6847. multipunctata (*Moore*) . 491
Tyana, *Wlk.* 492
6848. callichlora, *Wlk.* 492
6849. tenuimargo, *Druce* 493
6850. monosticta, *Hmpsn.* 493
6851. falcata (*Wlk.*) 494
6852. pustulifera, *Wlk.* 494
6853. chloroleuca, *Wlk.* 495
Earias, *Hübn.* 496
6854. novoguineana, *Beth.-Baker* 497
6855. rufopunctata, *Beth.-Baker.* 497
6856. uniplaga, *Beth.-Baker* . 497
6857. citrina, *Saalm.* 499
6858. luteolaria, *Hmpsn.* 500
6859. flavida, *Feld.* 500
6860. ogovana, *Holl.* 501
6861. biplaga, *Wlk.* 501
6862. huegeli, *Rogenh.* 502
6863. insulana (*Boisd.*) 502
6864. vernana (*Hübn.*) 504
6865. parallela, *Lucas* 504
6866. subviridis, *Lucas* 504

Page
6867. latimargo, *Hmpsn.* 505
6868. cupeoviridis (*Wlk.*) 505
6869. glaucescens (*Hmpsn.*) .. 506
6870. roseifera, *Butl.* 506
6871. pudicana, *Staud.* 507
6872. fabia (*Stoll.*) 507
6873. syriacana, *Bartel* 508
6874. chlorana (*Linn.*) 508
6875. chlorophyllana, *Staud.* . 509
6876. smaragdina, *Butl.* 509
6877. ochrophylla, *Turner* .. 509
Hylophilodes, *Hmpsn.* 510
6878. orientalis (*Hmpsn.*) 510
6879. rubromarginata (*Beth.-Baker*) 511
Hylophila, *Hübn.* 511
6880. bicolorana (*Fuessl.*) 511
6881. craeffti (*Gräser*) 512
6882. prasinana (*Linn.*) 513
6883. sylpha, *Butl.* 514
Parhylophila, *Hmpsn.* 514
6884. celsiana (*Staud.*) 514
Chloriola, *Hmpsn.* 515
6885. gratissima (*Wlk.*) 516
Ariola, *Wlk.* 516
6886. cœlisigna, *Wlk.* 516
Chlorozada, *Hmpsn.* 517
6887. pyrites, *Hmpsn.* 517
6888. prasina, *Hmpsn.* 518
6889. metaleuca (*Hmpsn.*) .. 518
6890. verna (*Hmpsn.*) 519
6891. endophæa, *Hmpsn.* 519
Paracrama, *Moore* 520
6892. dulcissima (*Wlk.*) 520
Lophocrama, *Hmpsn.* 521
6893. phœnicochlora, *Hmpsn.* . 521
6894. auritincta (*Hmpsn.*) .. 522
Pseudelydna, *Hmpsn.* 522
6895. xanthia (*Hmpsn.*) 523
6896. rufoflava (*Wlk.*) 523
Sphingiforma, *Beth.-Baker* 524
6897. prati, *Beth.-Baker* 525
Aiteta, *Wlk.* 526
6898. gamma (*Hmpsn.*) 527
6899. veluta, *Hmpsn.* 527
6900. escalerai, *Kheil* 528
6901. paralella, *Hmpsn.* 528
6902. meterythra, *Hmpsn.* .. 528
6903. thermistis (*Hmpsn.*) .. 529
6904. costiplaga, *Hmpsn.* 529
6905. hampsoni (*Beth.-Baker*) 530
6906. trigoniphora (*Hmpsn.*) .. 530
6907. scripta (*Wlk.*) 530
6908. subflava (*Beth.-Baker*) . 531
6909. albicosta (*Beth.-Baker*) . 531

Page

6910. iridias (*Meyr.*) 532
6911. elaina (*Swinh.*) 532
6912. musculina, *Wlk.* 533
6913. apriformis (*Wlk.*) 533
6914. damnipennis (*Wlk.*) .. 534
6915. truncata (*Wlk.*) 534
Clethrophora, *Hmpsn.* 535
6916. distincta (*Leech*) 535
Careades, *Beth.-Baker* 536
6917. falcataria, *Beth.-Baker* . 536
6918. eceicei (*Beth.-Baker*) .. 537
6919. hemichlora, *de Joan.* .. 538
6920. huntei (*Warr.*) 538
6921. plagioscia (*Turner*) 539
6922. obliqua, *Beth.-Baker* .. 539
6923. subrubra, *Beth.-Baker* . 540
6924. fulva, *Beth.-Baker* 541
6925. subricosa, *Beth.-Baker* . 541
Carea, *Wlk.* 542
6926. subtilis (*Wlk.*) 542
6927. chlorostigma, *Hmpsn.*.. 543
6928. annæ, *Swinh.* 544
6929. diplogramma, *Hmpsn.* . 545
6930. holophæa, *Hmpsn.* 545
6931. flava, *Beth.-Baker* 546
6932. varipes, *Wlk.* 547
6933. tumida, *Hmpsn.* 547
6934. costiplaga, *Swinh.* 548
6935. repandens, *Wlk.* 548
6936. unipunctata, *Beth.-Baker* 550
6937. purpurea, *Hmpsn.* 551
6938. biviata, *Hmpsn.* 551
6939. tarica (*Swinh.*) 552
6940. dione, *Swinh.* 552
6941. nitida, *Hmpsn.* 552
6942. parallelaria, *Beth.-Baker* 553
6943. obvia, *Hmpsn.* 553
6944. mathilda, *Swinh.* 553
6945. pryeri, *Druce* 554
6946. pratti, *Beth.-Baker* 554
6947. rubrifusa, *Hmpsn.* 555
6948. devia, *Hmpsn.* 555
6949. moira, *Swinh.* 555
6950. diagona, *Hmpsn.* 556
6951. obsolescens, *Moore* 556
6952. pallida, *Hmpsn.* 556
6953. leucocraspis, *Hmpsn.* .. 557
6954. endophæa, *Hmpsn.* 557
6955. internifusca, *Hmpsn.* .. 558
6956. ocyra, *Swinh.* 558
6957. metaphæa, *Hmpsn.* 558
6958. fasciata (*Moore*) 559
6959. albirufa, *Hmpsn.* 559
6960. robinsoni, *Swinh.* 560
6961. albopurpurea, *Hmpsn.*.. 560

Page

6962. albipicta, *Hmpsn.* 561
6963. viridipennis, *Druce* 561
6964. viridifascia (*Swinh.*) .. 562
6965. effusa (*Swinh.*) 563
6966. viridipicta (*Hmpsn.*) .. 563
6967. seticornis (*Wlk.*) 564
6968. mesocausta, *Hmpsn.* .. 564
6969. vexilla (*Swinh.*) 565
6970. nexilla (*Hmpsn.*) 565
Paracarea, *Beth.-Baker* 566
6971. rubiginea, *Beth.-Baker* . 566
Vizaga, *Swinh.* 567
6972. cyanea (*Snell.*) 567
6973. mirabilis (*Beth.-Baker*) . 568
Maceda, *Wlk.* 568
6974. mansueta, *Wlk.* 569
Maurilia, *Möschl.* 570
6975. saturata (*Wlk.*) 570
6976. albirivula, *Hmpsn.* 571
6977. heterochroa, *Hmpsn.* .. 572
6978. phæa, *Hmpsn.* 573
6979. iconica (*Wlk.*) 573
6980. arcuata (*Wlk.*) 574
6981. iocephala, *Turner* 575
Camptozada, *Hmpsn.* 575
6982. mirabilis (*Swinh.*) 575
6983. bilinea (*Swinh.*) 576
Erizada, *Wlk.* 577
6984. semifervens (*Wlk.*) 577
6985. subrubra (*Pag.*) 578
6986. rufa, *Hmpsn.* 579
Ptyonota, *Hmpsn.* 579
6987. formosa, *Hmpsn.* 579
Microzada, *Hmpsn.* 580
6988. anæmica, *Hmpsn.* 580
Beara, *Wlk.* 581
6989. dichromella, *Wlk.* 581
6990. nubiferella, *Wlk.* 582
6991. papuana, *Hmpsn.* 582
Gelastocera, *Butl.* 583
6992. exusta, *Butl.* 583
6993. castanea (*Moore*) 584
6994. ochroleucana (*Staud.*) .. 584
Bessara, *Wlk.* 585
6995. quadratipennis, *Wlk.* .. 585
Orthocraspis, *Hmpsn.* 586
6996. rectimarginata (*Hmpsn.*) 586
6997. acypera (*Hmpsn.*) 587
Tympanistes, *Moore* 587
6998. testacea, *Moore* 587
6999. rubidorsalis, *Moore* 588
7000. flavescens, *Swinh.* 588
7001. pallida, *Moore* 589
Acachmena, *Turner* 589
7002. œnocrossa, *Turner* 589

Page

Acripia, *Wlk.* 590
7003. scapularis (*Feld.*)..... 590
7004. subolivacea, *Wlk.* 591
7005. leprosa (*Feld.*) 591
7006. chloropera, *Hmpsn.*..... 592
7007. semiviridis, *Hmpsn.*..... 592
Churia, *Moore* 593
7008. ocellata (*Butl.*) 593
7009. maculata, *Moore* 594
7010. nigrisigna, *Moore*..... 594
Tortriciforma, *Hmpsn.*..... 594
7011. chloroplaga, *Hmpsn.* .. 595
7012. viridipuncta, *Hmpsn.* .. 595
Chloroplaga, *Hmpsn.* 596
7013. nygmia (*Swinh.*) 596
Goniocalpe, *Hmpsn.*..... 597
7014. sericealis (*Hmpsn.*).... 597
Plusiocalpe, *Holl.*..... 598
7015. sericina (*Mab.*)..... 598
7016. pallida, *Holl.* 599
Hypodeva, *Holl.* 599
7017. barbata, *Holl.* 600
7018. nocturna (*Hmpsn.*) 601
7018 *a.* superba (*Druce*)..... 672
Metaptya, *Hmpsn.* 601
7019. lucida, *Hmpsn.*..... 601
7020. sericea, *Hmpsn.* 602
7021. endoplaga, *Hmpsn.* 603
Vestermannia (*Hübn.*)..... 603
7022. argentata (*Butl.*) 604
7023. longiplaga (*Beth.-Baker*) 605
7024. argyroplaga (*Hmpsn.*).. 605
7025. concha (*Butl.*) 605
7026. gloriosa, *Hmpsn.*..... 606
7027. superba (*Hübn.*) 606
7028. argentea (*Hmpsn.*) 607
7029. triangularis (*Moore*) .. 608
7030. cuprea (*Hmpsn.*) 608
7031. agrapha (*Hmpsn.*) 609
7032. anchorita (*Holl.*)..... 609
7033. goodi (*Holl.*) 610
7034. arægramma (*Hmpsn.*) . 610
7035. convergens (*Hmpsn.*) .. 610
7036. œdiplaga (*Hmpsn.*).... 611
7037. cœlisigna (*Hmpsn.*) .. 611
7038. cornucopia (*Hmpsn.*) .. 612
7039. picta (*Moore*) 612
Plagiograpta, *Hmpsn.*..... 613
7040. macrodonta, *Hmpsn.* .. 613
Nertobriga, *Wlk.*..... 614
7041. signata (*Wlk.*)..... 614
7042. soliera (*Swinh.*) 615
7043. straminea (*Hmpsn.*) .. 616
7044. abbreviata (*Wlk.*) 616

Page

Trogobriga, *Hmpsn.* 616
7045. albifera, *Hmpsn.* 616
Neonegeta, *Hmpsn.*..... 617
7046. xanthobasis (*Hmpsn.*).. 618
7047. atriflava, *Hmpsn.*..... 618
7048. zelia (*Druce*) 618
7049. purpurea, *Hmpsn.* 619
7050. trigonica (*Hmpsn.*) 619
7051. pollusca (*Schaus*)..... 620
Metaleptina, *Holl.* 620
7052. microcyma (*Hmpsn.*) .. 621
7053. albibasis, *Holl.*..... 621
7054. obliterata, *Holl.* 621
7055. nigribasis, *Holl.* 622
7056. albilinea, *Hmpsn.*..... 622
7057. dileuca, *Hmpsn.* 623
7058. geminastra (*Hmpsn.*) .. 623
7059. digramma (*Hmpsn.*) .. 623
Negeta, *Wlk.* 624
7060. molybdota, *Hmpsn.*..... 625
7061. approximans, *Hmpsn.*.. 625
7062. stalactitis (*Hmpsn.*) .. 625
7063. cinerascens (*Holl.*) 626
7064. nubilicosta (*Holl.*) 626
7065. phæopepla (*Hmpsn.*) .. 627
7066. ochroplaga (*Beth.-Baker*) 627
7067. mesoleuca (*Holl.*) 628
7068. luminosa (*Wlk.*) 628
7069. albigrisea (*Hmpsn.*).... 629
7070. ruficeps (*Hmpsn.*) 629
7071. purpurascens, *Hmpsn.*.. 630
7072. chlorocrota (*Hmpsn.*) .. 630
7073. contrariata, *Wlk.*..... 631
7074. sublineata (*Wlk.*) 631
7075. lacteata (*Hmpsn.*) 632
7076. nivea (*Hmpsn.*) 632
Odontestis, *Hmpsn.*..... 632
7077. cyphonota, *Hmpsn.* 633
7078. prosticta (*Holl.*) 633
7079. striata, *Hmpsn.* 634
7080. fuscicona (*Hmpsn.*) 634
7081. mesonephele (*Beth.-Baker*) 635
Macrochthonia, *Butl.* 635
7082. fervens, *Butl.* 636
Lobocraspis, *Hmpsn.* 636
7083. griseifusa, *Hmpsn.* 637
Gonioxestis, *Hmpsn.* 637
7084. zanderi (*Feld.*)..... 637
Neaxestis, *Hmpsn.* 638
7085. griseata, *Hmpsn.*..... 639
7086. acutangula, *Hmpsn.* .. 639
7087. rhoda, *Hmpsn.*..... 639

	Page
7088. mesogonia (*Hmpsn.*) ..	640
7089. irrorata (*Hmpsn.*)	640
7090. piperita (*Hmpsn.*)	641
Paraxestis, *Hmpsn.*	641
7091. rufescens, *Hmpsn.*	641
Microxestis, *Hmpsn.*	642
7092. vutzdorffi (*Püng.*)	642
Arcyophora, *Guen.*	642
7093. bothrophora, *Hmpsn.* ..	643
7094. carniola, *Hmpsn.*	643
7095. longivalvis, *Guen.*	644
7096. icterica (*Swinh.*)	645
7097. dentula (*Led.*)	645
7098. stali (*Wllgrn.*)	645
Pterogonia, *Swinh.*	646
7099. nubes (*Hmpsn.*)	646
7100. aurigutta (*Wlk.*)	647
7101. episcopalis, *Swinh.*	648
7102. striatura (*Moore*).....	649
7103. nerissa, *Swinh.*	650
Setoctena, *Wllgrn.*	650
7104. dives (*Butl.*).....	651
7105. trigramma, *Hmpsn.*	651
7106. patricula (*Hmpsn.*)	651
7107. endoglauca (*Hmpsn.*) ..	652
7108. ledereri, *Wllgrn.*	652
7109. polla (*Schaus*)	653
Acontia, *Ochs.*	653
7110. emboloscia, *Turner*	653
7111. aroa, *Beth.-Baker*	654
7112. transversa (*Guen.*)	654
7113. amata (*Wlk.*)	656
7114. intersepta (*Guen.*)	656
7115. congenita, *Hmpsn.*	657
7116. malvæ (*Esp.*)	658
7117. gephyrias, *Meyr.*	659
7118. dinarodes, *Hmpsn.*	659
7119. graellsi, *Feisth.*	660
Leocyma, *Guen.*	661
7120. appollinis, *Guen.*	661
7121. vates, *Saalm.*	662
7122. discophora, *Hmpsn.*....	662
7123. camilla (*Druce*)	662
Armactica, *Wlk.*	663
7124. endoleuca, *Hmpsn.*	664
7125. columbina, *Wlk.*	664
7126. andreusi, *Hmpsn.*	665
7127. conchidia (*Butl.*)	665

CATALOGUE

OF

LEPIDOPTERA PHALÆNÆ.

Family NOCTUIDÆ.

Subfamily EUTELIANÆ.

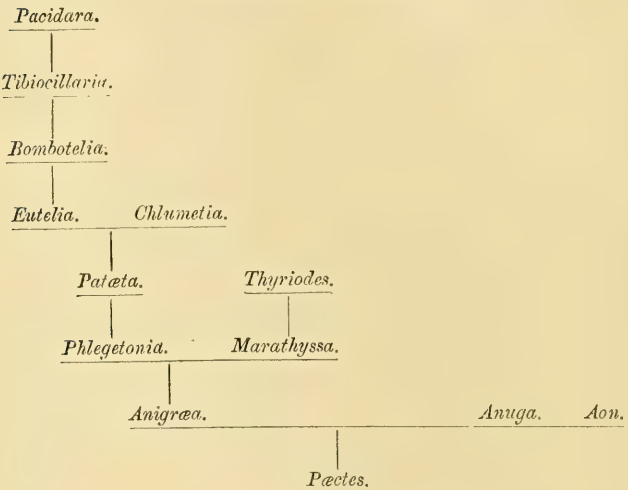
Proboscis usually fully developed, rarely aborted or absent; palpi upturned, the 3rd joint usually rather long; frons smooth, usually with a tuft of hair above; eyes large and naked, without bristly cilia from their margins; antennæ usually pectinated in male on basal half, sometimes ciliated or almost simple; thorax clothed with hair and scales or with hair only, the tegulæ sometimes produced to a hood or dorsal ridge; tibiæ without spines, usually moderately fringed with hair, sometimes with large tufts of scales and hair on both tibiæ and tarsi; abdomen with or without dorsal crests, usually with lateral tufts of hair and more or less developed paired anal tufts or sometimes a long tubular tuft. Wings usually triangular, sometimes very long and narrow, in repose more or less strongly folded at the discal fold and hanging downwards; fore wing with vein 1 *a* weak, not anastomosing with 1 *b*; 1 *c* absent; 2 from middle of cell; 3 and 5 from near lower angle; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole, which is sometimes minute or in aberrant specimens entirely aborted; 11 from cell. Hind wing with veins 1 *a* and 1 *b* present; 1 *c* absent; 3, 4 from lower angle of cell, rarely stalked; 5 fully developed, more or less approximated to the lower angle of cell; 6, 7 from upper angle, or rarely stalked; 8 anastomosing with the cell near base only; frenulum of female single.

Larva with all the prolegs present, almost smooth, the warts sometimes produced to slight processes, the thoracic somites sometimes dilated.

Fig. 1.—Larva of *Eutelia adulatrix*. ½.

The subfamily is a parallel development with the *Stictopterinæ* from the *Noctuinæ*, from which it is distinguished by the single frenulum formed by conjoined bristles in the female and the more or less developed paired anal pencils of hair or long tubular anal tuft.

PHYLOGENY OF THE EUTELIANÆ.



Key to the Genera.

A. Abdomen with dorsal series of crests.
  a. Tegulæ produced to a hood; the tarsal joints with tufts of scales.
    a^1. Abdomen with lateral tufts on 3rd segment containing long spatulate scales ..... PACIDARA, p. 3.
    b^1. Abdomen without lateral tufts containing long spatulate scales ..... TIBIOCILLARIA, p. 5.
  b. Tegulæ produced to a slight dorsal ridge ..... BOMBOTELIA, p. 6.
  c. Tegulæ not produced to a hood or dorsal ridge.
    a^1. Fore wing with the termen excised or oblique below vein 3 ..... EUTELIA, p. 15.

b^1. Fore wing with the termen evenly curved.
a^2. Fore wing long and narrow.
a^3. Palpi with tuft of hair on 3rd joint behind; abdomen without crests on terminal segments ..... THYRIODES, p. 85.
b^3. Palpi without tuft of hair on 3rd joint behind; abdomen with dorsal crests on terminal segments ..... MARATHYSSA, p. 88.
b^2. Fore wing short and broad ..... CHLUMETIA, p. 63.
B. Abdomen with dorsal crest on anal segment only . PATÆTA, p. 68.
C. Abdomen without dorsal crests.
a. Fore wing with the termen excised or oblique below vein 3; abdomen with paired lateral anal tufts ..... PHLEGETONIA, p. 70.
b. Fore wing with the termen evenly curved.
a^1. Adomen with paired lateral anal tufts ..... ANIGRÆA, p. 93.
b^1. Abdomen with tubular anal tuft.
a^2. Fore wing very long and narrow.
a^3. Hind wing with veins 3, 4 stalked; proboscis absent ..... AON, p. 108.
b^3. Hind wing with veins 3, 4 from cell; proboscis fully developed ..... ANUGA, p. 102.
b^2. Fore wing triangular ..... PÆCTES, p. 109.

Genus **PACIDARA.**

Type.
Pacidara, Wlk. xxxiii. 830 (1865) ..... *venustissima.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately fringed with hair in front, the 3rd moderate; frons smooth; eyes large, round; antennæ of male bipectinate with moderate branches to middle, the apical part ciliated, of female with the basal half serrate, the basal joint with large tuft of scales; tegulæ of male forming a triangular hood extending to metathorax, which has a slight crest, of female with much smaller hood; fore tibiæ of male fringed with long hair, the hind tibiæ with immense curled tufts of hair, the tarsi with fringe of scales above forming a large spatulate tuft at base, the hind femora fringed with long hair, the base of tibiæ with long curled tufts of hair; abdomen with ridges of hair on basal segments and slight crests on terminal segments, a lateral tuft of a few long spatulate hairs at middle and paired anal tufts of long hair. Fore wing with the apex produced and acute, the termen crenulate, slightly angled at vein 3, then oblique; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with the costa slightly excised at middle, the termen excurved below apex in male, then excised and with large patch of ribbed membrane on underside from cell to apex; the cell less than half length of wing; veins 3, 4 from angle; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

6198. Pacidara venustissima.

Pacidara venustissima, Wlk. xxxiii. 831 (1865).

♂. Head and thorax chocolate-brown, the head with some grey scales; palpi with the 1st and 2nd joints white except behind: antennæ with the basal joint white; patagia with slight oblique white line; metathorax with white patch; pectus pure white; fore legs chocolate, the tarsi white with chocolate band on 1st joint; mid legs chocolate, the spurs white with black ring, the tarsi white, the fringe of hair tinged with chocolate; hind legs white, the tibia with black points, the spurs with black rings: abdomen

palo pinkish brown, the terminal segments with slight brown dorsal streak and subdorsal white points, the hairs of lateral tuft white tipped with black, the ventral surface white at base. Fore wing pale pinkish brown; a slight black mark at base; subbasal line represented by a white point below costa and black spot at vein 1 defined on inner side by a white striga; antemedial area suffused with plum colour; antemedial line double, white suffused with purple, indistinct, oblique and slightly waved from costa to median nervure towards end of cell, then inwardly oblique, the inner line slightly angled inwards at submedian fold and vein 1; an irregularly quadrate yellow spot in cell towards extremity, with triangular white mark above it on costa with some black points on it; two minute blackish discoidal points; a hyaline

Fig. 2.—*Pacidara venustissima*, ♂. ½.

yellow band irrorated with black beyond the antemedial line from vein 2 to inner margin, with small spot above vein 2 and vein 1 streaked with rufous; postmedial line double, with triangular white patch at costa, the outer line blackish, the inner white tinged with purple below vein 7, the outer line moderately oblique from costa to below vein 7 where it is angled, the inner line very oblique and acutely angled, the line then oblique, the outer line waved and defined on inner side by purple below vein 4, the inner line with black points at submedian fold, vein 1, and inner margin; subterminal line represented by a series of small hyaline yellow spots and a large quadrate patch below the angle of postmedial line between veins 6 and 4, the spot below costa faint, the spot above vein 6 bifid and defined on inner side by deep red, the quadrate patch with small red spot near upper edge followed by points, and two points near inner edge, the spot below vein 4 angled inwards, between veins 2 and 1 reduced to a fine line; the terminal area suffused with purple from above vein 6 to vein 3, leaving a narrow pale yellow terminal band with small black spots just before termen, and some points on termen, larger spot at vein 6 and patch at veins 4, 3;

cilia pale yellow with black patches at veins 6 and 3. Hind wing hyaline white, the terminal area brown with darker streaks on the veins from apex to vein 3, then pinkish; a brownish streak on extremity of median nervure; pinkish streaks below vein 2 and on vein 1 except towards base; two postmedial black points on inner margin and a subterminal yellowish bar between veins 3 and 2; cilia white, tinged with pink towards tornus and with black points at the veins except towards apex; the underside white, the area with ribbed membrane tinged with brown, a black discoidal spot, a black patch at base of costa, oblique bar from middle, and point and streak towards apex.

♀. Darker; abdomen with lateral black-brown patches at base with slight white segmental lines on them and some bluish-white hair; fore wing with the antemedial area and the postmedial area below vein 4 darker; hind wing with the terminal area black-brown with fine yellowish line before termen, with small spot above vein 3 and bar below vein 3, the underside with postmedial series of black points and diffused subterminal band.

Hab. S. Leone (*Bartlett*) 1 ♀, Port Lokko (*Penny*), 1 ♀; S. Nigeria, Lagos (*Boag*), 1 ♂, 1 ♀, Sapele (*Sampson*), 1 ♂; Natal, Durban (*Gueinzius*, *Gooch*, *Cooke*), 4 ♂, 4 ♀ type. *Exp.* 52–64 millim.

Genus TIBIOCILLARIA.

	Type.
Tibiocillaria, Beth.-Baker, Nov. Zool. xiii. p. 231 (1906)	*pratti*.

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching about to vertex of head and broadly rounded with hair in front, the 3rd moderate and tufted with hair in front; frons smooth, with large tuft of hair; eyes large, round; antennæ of male with the basal half bipectinate, the apical half ciliated; thorax clothed with hair only, the tegulæ produced to a large conical hood, the thorax with ridge-like crest; fore tibiæ fringed with long hair on outer side, mid tibiæ fringed with long hair on inner side, the hind tibiæ with tufts of hair on outer side at base and on inner and outer sides at extremity; the tarsi with tufts of hair on the joints, the hind tarsi with large tuft on 1st joint; abdomen with large crest on basal segment and small crests on the next three segments. Fore wing with the costa nearly straight, the apex rectangular, the termen erect and slightly sinuous to vein 3, then very oblique and somewhat excised; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with the termen angled at vein 2, then excised to tornus; veins 3, 4, 5 from angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

*6199. Tibiocillaria pratti.

Tibiocillaria pratti, Beth.-Baker, Nov. Zool. xiii. p. 231 (1906).

♂. Head and thorax dark chocolate-brown; sides of frons and a band between antennæ pale rufous; tegulæ pale rufous at base and with some grey hair at vertex of hood; patagia with oblique grey line; thorax dorsally mixed with rufous; pectus and the fringes of hair on legs mostly rufous, the tarsi ringed with white; abdomen dark brown, the basal crest deep chocolate, the anal tuft and ventral surface except at extremity pale rufous. Fore wing

dark brown tinged with greyish, the terminal half of costal area suffused with pale rufous; some deep rufous on inner area before the antemedial line which is double, the inner line slight, whitish, the outer diffused blackish, oblique from costa to subcostal nervure, where it is angled then very oblique; a black patch beyond lower angle of cell before the postmedial line, which is double, oblique and ochreous from costa to vein 6, then white, obliquely incurved and ending near tornus, crossed by a diffused black streak at vein 6 and slight white streak in discal fold, a curved fiery red mark beyond it below discal fold with a curved black mark below it from postmedial line to angle of termen; a velvety black patch at apex defined on inner side by greyish; some white points on costa

Fig. 3.—*Tibiocillaria pratti*, ♂. ½.

towards apex; a slight incurved greyish subterminal line from the curved black streak to tornus. Hind wing white; a dark discoidal spot; the costal area suffused with brownish grey; the terminal area deep rufous except towards apex, its inner edge irregular, emitting slight streaks on the veins, indented at submedian interspace and expanding at inner margin; a white striga from vein 2 to termen at vein 1 and another on inner margin before tornus; a fine black terminal line; cilia with a fine pale line at base; the underside with the costal area suffused with pale rufous, a deep red discoidal spot defined by white, a white postmedial line defined on inner side by black points on the veins of inner half, the terminal area deep red below vein 5 with white bar in submedian interspace with white mark before it.

Hab. Br. N. Guinea, Mt. Kebea (*Pratt*), type † ♂ in Coll. Bethune-Baker, Dinawa. *Exp.* 38 millim.

Genus **BOMBOTELIA**, nov.

Type, *B. jocosatrix*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to middle of frons and moderately scaled, the 3rd moderate; frons smooth, with large pointed tuft of hair; eyes large, round; antennæ of male typically pectinated on basal half; thorax clothed with hair and scales mixed, the tegulæ produced to a dorsal ridge, the thorax with slight ridge-like crest; tibiæ fringed with long hair; abdomen with ridge of scales at base, slight crests on medial segments and small paired anal tufts. Fore wing with the apex rectangular, the termen slightly excurved at vein 6 and angled at vein 3, then oblique to tornus; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Antennæ of male bipectinate with moderate branches, the apical third ciliated.

6200. Bombotelia nugatrix.

Penicillaria nugatrix, Guen. Noct. ii. p. 303, pl. 14. f. 7 (1852); Hmpsn. Moths Ind. ii. p. 394.

Head, thorax, and abdomen deep purplish red-brown; tegulæ slightly edged with grey; prothorax with a slight grey line across it; tarsi slightly ringed with whitish. Fore wing deep purplish red-brown; subbasal line double, blackish filled in with brownish grey, slightly angled outwards below costa, then oblique to vein 1 at base; antemedial line double, blackish filled in with brownish grey, obliquely excurved from costa to just below the cell, then inwardly oblique; reniform blackish brown defined by grey, rather constricted at middle; vein 3 slightly streaked with grey; postmedial line double, blackish filled in with grey, slightly bent outwards below costa, then somewhat sinuous, oblique to vein 4, inwardly oblique to vein 2 and outwardly to inner margin, a faint

Fig. 4.—*Bombotelia nugatrix*, ♂. ½.

whitish line beyond it, oblique from costa to discal fold, waved to vein 3, then incurved; subterminal line whitish with an oblique rufous band before it from costa to discal fold, where it is bent inwards, angled outwards at veins 4, 3, then incurved and ending at tornus. Hind wing white, the terminal area purplish brown, a rufous patch on extremity of vein 2 with some whitish below it on termen; a terminal series of slight dark lunules and fine whitish line at base of cilia; the underside irrorated with red-brown, the costal and terminal areas purplish red-brown, a large black discoidal spot defined by white, double curved postmedial line with black points before it on the veins, and waved subterminal line with yellowish marks beyond it.

Hab. Punjab, Almorah (*Boys*), 1 ♂, 3 ♀, Jubbulpur (*F. Butler*), 1 ♀, Manpuri, 1 ♂. *Exp.* 26–30 millim.

Sect. II. Antennæ of male with the basal half bipectinate with short fasciculate branches, the apical half almost simple; of female with the basal third serrate.

6201. Bombotelia maculata.

Penicillaria maculata, Butl. Ill. Het. B.M. vii. p. 71, pl. 130. f. 5 (1889); Hmpsn. Moths Ind. ii. p. 393.

Head and thorax purplish brown with some rufous on edges of tegulæ and thoracic crest; pectus white, the tibiæ and tarsi ringed

with white; abdomen rufous with purple-brown lateral stripes and slight white segmental lines on three basal segments. Fore wing rufous suffused with purple-brown; a slight waved subbasal line from costa to vein 1; the antemedial area deep purple-brown with a bluish-white line on its outer edge from cell to inner margin; antemedial line indistinct, blackish, oblique from costa to submedian fold, then inwardly oblique, slight whitish streaks beyond it in

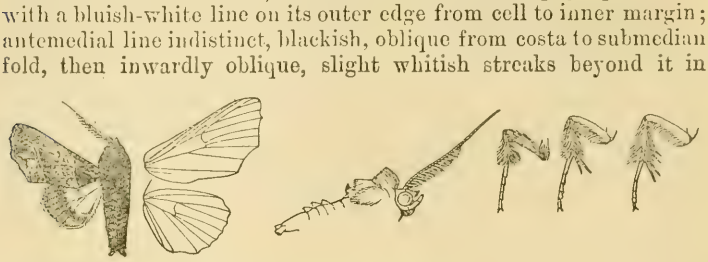


Fig. 5.—*Bombotelia maculata*, ♂. ½.

discal and submedian folds; postmedial line double, ochreous towards costa, then white, oblique from costa to vein 6 where it is obtusely angled, then inwardly oblique and sinuous, the inner line being defined by black suffusion on inner side, some leaden grey suffusion before it on inner margin and beyond it from below vein 3 becoming white above, an oblique wedge-shaped black patch from the angle of the line to termen at vein 3; subterminal line whitish, oblique from costa to termen at vein 6, then minutely waved and almost terminal to vein 3, then incurved and ending at tornus, the area beyond it deep purple-brown; a fine pale line at base of cilia. Hind wing pure white, the costal and terminal areas purple-brown; a brown discoidal spot, postmedial series of minute dark points on the veins and white striga at inner margin, an oblique white bar from vein 3 to tornus; a terminal series of small dark lunules faintly defined by white and white line at base of cilia; the underside with some dark irroration in cell, a large elliptical black discoidal spot and postmedial series of points before a white line.

Hab. Punjab, Dalhousie (*Harford*), 1 ♂, Dharmsála (*Hocking*), 1 ♂ type; Sikhim (*Möller*), 3 ♂, 3 ♀. *Exp.* 30 millim.

Sect. III. Antennæ of male with the basal half strongly serrate and fasciculate, the apical half almost simple.

A. Fore wing fiery red ..... *dinavaensis.*
B. Fore wing dark brown tinged with grey.
  a. Fore wing with the inner and postmedial areas yellow suffused with rufous ..... *aureiplaga.*
  b. Fore wing with the inner and postmedial areas not yellow suffused with rufous.
    a^1. Fore wing with the antemedial line oblique, straight.
      a^2. Fore wing with oblique black discoidal bar ..... *dinava.*
      b^2. Fore wing with slight white discoidal lunule..... *meeci.*
    b^1. Fore wing with the antemedial line excurved.
      a^2. Fore wing with the postmedial line angled outwards at vein 6, then oblique ..... *jocosatrix.*
      b^2. Fore wing with the postmedial line excurved from below costa to vein 4, then incurved ..... *simplex.*

*6202. Bombotelia dinavaensis. (Plate CLXXIV. fig. 10.)

Tibiocillaria dinawaensis, Beth.-Baker, Nov. Zool. xiii. p. 232 (1906).

♂. Head and thorax bright rufous, the vertex of head and tegulæ red-brown; palpi ochreous; antennæ dark brown with the basal joint white; pectus and legs whitish tinged with rufous, the tarsi ringed with white; abdomen pale rufous tinged with yellowish at base and greyish towards extremity. Fore wing fiery red, the costal area pale red-brown tinged with grey to beyond middle, the terminal area dark brown suffused with grey, yellow patches on inner area at base and beyond antemedial line, and a whitish streak in discal fold to postmedial line; the 1st line almost medial, diffused, oblique, blackish from below costa to submedian fold, then brown; a red line from lower angle of cell to inner margin, angled outwards on vein 1 and bent inwards to inner margin; postmedial line brown with white point at costa, obsolescent and bent outwards below costa, excurved to vein 4, oblique to submedian fold where it is angled inwards, then excurved, some white points beyond it on costa; subterminal line with incurved series of small yellow spots from costa to vein 6, obsolete to vein 4, then slight, whitish, excurved from above vein 2 and joined by an incurved white line from near angle of termen to tornus; cilia red-brown. Hind wing white, the terminal area broadly suffused with red-brown, a terminal white mark with red patch above it in submedian interspace; the inner margin deep red towards tornus intersected by a white striga; the underside with the costal area pale rufous, the terminal area deep rufous interrupted by white in submedian interspace, a red discoidal spot, a slight white postmedial line defined on inner side by minute dark streaks on the veins.

Hab. Br. N. Guinea, Dinawa (*Pratt*), type † ♂ in Coll. Bethune-Baker. *Exp.* 30 millim.

*6203. Bombotelia aureiplaga. (Plate CLXXIV. fig. 11.)

Tibiocillaria aureiplaga, Beth.-Baker, Nov. Zool. xiii. p. 232 (1906).

♂. Head and thorax deep red-brown, the latter with some rufous and greyish on vertex; pectus pale rufous; tarsi ringed with white; abdomen pale rufous with some deep rufous at base of dorsum and towards extremity, the ventral surface irrorated with deep rufous. Fore wing dark brown tinged with greyish especially on middle of costal area, the inner half and postmedial area golden yellow suffused with bright rufous; antemedial line brown with white point on costa, sinuous, oblique from costa to submedian fold, then incurved; a blackish discoidal spot; a waved red-brown line from lower angle of cell to inner margin; postmedial line brown slightly defined by yellowish on outer side and with white point at costa, bent outwards below costa, oblique to vein 6, then inwardly oblique to submedian fold and excurved above inner margin, some white points beyond it on costa; subterminal line

white defined on inner side by dark brown, obliquely incurved from costa to vein 6, almost obsolete to vein 3, then incurved to tornus, a brighter yellow patch before it below costa; cilia with a slight pale line at base. Hind wing white, the inner margin brown; the terminal area deep red, its inner edge emitting slight streaks on the veins; an oblique white bar from vein 2 to termen at vein 1; a slight waved whitish subterminal line from apex to vein 5 with some dark points beyond it; the inner margin black towards tornus intersected by a white striga; the underside with the costal and terminal areas broadly deep red-brown, a black-brown discoidal spot; traces of a diffused medial line from costa to vein 3, a faint minutely waved postmedial line slightly defined by brown marks on inner side, an oblique white bar to termen in submedian interspace with blackish patches before it.

Hab. Br. N. Guinea, Ekeikei (*Pratt*), type † ♂ in Coll. Bethune-Baker. *Exp.* 24 millim.

*6204. **Bombotelia dinava.** (Plate CLXXIV. fig. 12.)

Penicillaria dinawa, Beth.-Baker, Nov. Zool. xiii. p. 231 (1906).

♂. Head and thorax pale red-brown with a greyish tinge; palpi white on inner side; hind tibiæ and tarsi whitish; abdomen grey-brown with subdorsal series of slight blackish marks except towards extremity, the ventral surface whitish. Fore wing pale grey-brown slightly suffused with fiery red; antemedial line double, brown, oblique, slightly excurved at median nervure; an oblique blackish discoidal bar; postmedial line indistinct, dark, rather diffused, with white striga at costa, bent outwards below costa, oblique to vein 6, inwardly oblique to vein 2 where it is bent inwards and with slight white mark on its outer edge, then again slightly excurved, some white points beyond it on costa; subterminal line white and obliquely incurved from costa to vein 6 near termen, indistinct to vein 3 where it is bent inwards, then slight, whitish and ending on termen at vein 1; a fine black terminal line; cilia fuscous with fine pale line at base. Hind wing white, the terminal area broadly brown tinged with red; some whitish on termen at apex and submedian interspace, a fine dark terminal line; cilia fuscous with a fine white line at base; the underside with the costal and terminal areas suffused with pale reddish brown, the terminal area interrupted by white in submedian interspace, a blackish discoidal spot.

Hab. Br. N. Guinea, Dinawa (*Pratt*), type † ♂ in Coll. Bethune-Baker. *Exp.* 26 millim.

*6205. **Bombotelia meeci.** (Plate CLXXIV. fig. 13.)

Penicillaria meeki, Beth.-Baker, Nov. Zool. xiii. p. 231 (1906).

♀. Head, thorax, and abdomen very dark chocolate-brown; pectus with whitish mixed; tarsi ringed with white. Fore wing

very dark chocolate-brown suffused with greyish; antemedial line dark, inwardly oblique, nearly straight, defined on each side by greyish; a slight whitish discoidal lunule; postmedial line with whitish striga from costa, then dark, slightly defined on outer side by greyish, oblique to vein 6, then inwardly oblique and slightly angled inwards just below vein 2, some whitish points beyond it on costa and a chocolate-red patch below costa; subterminal line incurved and whitish from costa to vein 7, then slight, pale, incurved below vein 4 and ending at tornus; a slight pale line at base of cilia. Hind wing white, the terminal area broadly chocolate-brown, greyish towards apex; a dark discoidal point and postmedial series of points on the veins just before the terminal band; a whitish mark on termen at submedial fold; a fine whitish line at base of cilia; the underside with the costal area and cell irrorated with chocolate-brown, the terminal area chocolate-brown except towards tornus where it is white with a dark patch on it, an elliptical black discoidal spot defined by white, and curved postmedial series of points on the veins.

Hab. Br. N. Guinea, Aroa R. (*Meek*), type † ♀ in Coll. Rothschild. *Exp.* 24 millim.

6206. Bombotelia jocosatrix.

Penicillaria jocosatrix, Guen. Noct. ii. p. 304 (1852); Moore, Lep. Ceyl. iii. p. 62, pl. 151. ff. 8, 8*a*; Hmpsn. Moths Ind. ii. p. 393.

Head and thorax deep purple-brown, abdomen rather redder brown; pectus whitish tinged with rufous; spurs and tarsi ringed with white. Fore wing deep purple-brown tinged with grey;

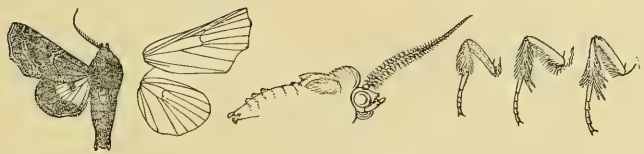


Fig. 6.—*Bombotelia jocosatrix*, ♂. ½.

antemedial line blackish slightly defined on inner side by white, excurved from costa to just below cell, then oblique, a darker patch beyond it on costa; postmedial line indistinct, dark and oblique from costa to vein 6, then slightly defined on outer side by white, inwardly oblique to submedian fold, then waved, a redder shade from costa before subterminal line to the inner side of postmedial line at vein 3; subterminal line white and incurved from costa to vein 6 near termen, then sinuous, incurved below vein 3 and ending at tornus. Hind wing pure white, the terminal area brown suffused with purple-grey and with a redder patch at extremity of vein 2; a brown discoidal spot and postmedial series of brown points on the veins; the underside with the costal and terminal

areas red-brown, an elliptical black discoidal spot and postmedial series of minute streaks on the veins.

Hab. Sikhim (*Dudgeon*), 2 ♀; Bombay, Kanara (*Ward*), 1 ♂; Madras, Nilgiris, 1 ♀; Ceylon (*Templeton*), 1 ♂, 1 ♀; Java (*Horsfield*), 1 ♂, 5 ♀ type, Batavia, 1 ♂; Queensland, Brisbane (*Turner*), 3 ♂, 1 ♀. *Exp.* 24–32 millim.

Larva. Green with sublateral dark striæ, the somites with small purple spots and a subdorsal series of larger spots; a few hairs from the tubercles. Food-plant, *Terminalia belerica*.

6207. Bombotelia simplex. (Plate CLXXIV. fig. 14.)

Eutelia simplex, Wlk. xxxiii. 824 (1865); Hmpsn. Moths Ind. ii. p. 394.

Head, thorax, and abdomen red-brown; pectus white; tarsi ringed with white. Fore wing red-brown with a slight purplish tinge especially on terminal area; subbasal line represented by a slight grey striga from costa; the antemedial area with a faint oblique brown shade from below costa to inner margin; antemedial line dark, slightly defined on inner side by white, oblique from costa to submedian fold, then inwardly oblique, a yellow and rufous bar beyond it from submedian fold to inner margin; reniform an indistinct dark lunule faintly defined by whitish; traces of a dark medial line, arising at upper extremity of reniform, excurved to vein 4, then oblique to outer edge of the yellow bar; postmedial line double, the lines widely separated, whitish except below costa where it is filled in with rufous suffusion, the inner line slightly defined by dark brown, oblique from costa to vein 6 where it is obtusely angled, inwardly oblique and minutely waved to submedian fold, then bent outwards to near tornus, a white point beyond it on costa; subterminal line white, incurved from costa to termen at vein 6, obsolete to vein 3, then incurved and ending at tornus; cilia dark brown. Hind wing pure white, the costal and terminal areas purplish brown; a brown discoidal spot, postmedial white striga at inner margin, and whitish bar from vein 3 to tornus; a terminal series of slight dark lunules and fine white line at base of cilia; the underside with elliptical black discoidal spot and postmedial series of minute dark streaks on the veins defined on outer side by white.

Hab. Sikhim, 7000′ (*Pilcher*, *Möller*), 3 ♂, 4 ♀; Assam (*Badgley*), 1 ♂; Madras, Nilgiris (*Hampson*), 1 ♂, Palnis (*Campbell*), 1 ♂; Singapore (*Wood-Jones*), 1 ♂; hab. ign. 1 ♂ type. *Exp.* 24–30 millim.

Sect. IV. Antennæ of male with the basal half minutely serrate and fasciculate, the apical half almost simple.

A. Abdomen with dorsal white spot on 4th segment ..... *dorsipuncta*.
B. Abdomen without dorsal white spot ..... *lineatrix*.

6208. Bombotelia dorsipuncta, n. sp.

Penicillaria maculata, Semper, Reise Phil., Schmett. ii. p. 534 (nec Butl.).

Head and thorax deep purple-brown, the tegulæ slightly edged with whitish; pectus white, the tarsi ringed with white; abdomen rufous with small dorsal white spot on 4th segment, the ventral surface deep purple-brown with small yellow spot at base. Fore wing red-brown mixed with some greyish ochreous and suffused with deep purple plum-colour; some slight black irroration on inner area towards base; antemedial line fine, white, defined on outer side by black and greyish ochreous, oblique from costa to vein 2 below the cell, then inwardly oblique, touching the reniform which is slightly defined by white, strongly constricted at middle and produced at upper extremity, a white striga above it from costa; the medial area with veins 4 to 1 streaked with greyish ochreous; postmedial line double, greyish ochreous, oblique from costa to vein 6, where it is obtusely angled, then inwardly oblique, sinuous

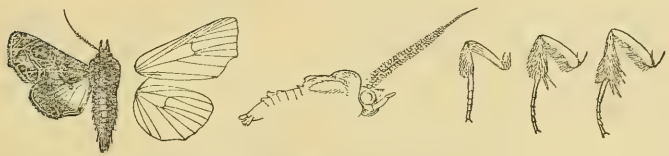


Fig. 7.—*Bombotelia dorsipuncta*, ♂. ½.

and bent outwards to inner margin, the inner line not quite reaching costa and with black marks before it, an oblique black mark from its angle to termen at vein 3 defined above by greyish ochreous and with silvery-blue suffusion below it; a wedge-shaped chocolate-brown patch from costa before the subterminal line, which is whitish and incurved from costa to termen at vein 6, below vein 4 pure white, angled outwards at vein 3 and ending at tornus, the area beyond it black; a terminal series of minute black lunules slightly defined by white from apex to vein 4, a fine pale line at base of cilia. Hind wing pure white, the costal and terminal areas purplish brown, a brown discoidal spot, postmedial white striga at inner margin, and white line from vein 3 to termen at vein 1; a terminal series of minute dark lunules and fine whitish line at base of cilia; the underside with elliptical black discoidal spot, minutely waved white postmedial line, subterminal white spot at discal fold and bar towards tornus.

Hab. Singapore (*Ridley*, *Wood-Jones*), 1 ♂, 6 ♀ type; Philippines, Luzon. *Exp.* 26–28 millim.

Larva. Semper, Reise Phil., Schmett. ii. pl. R. f. 7.

Green with subdorsal series of small yellow spots and lateral series of larger spots on abdominal termites. Food-plant, *Semecarpus*.

6209. **Bombotelia lineatrix.** (Plate CLXXIV. fig. 15.)

Penicillaria lineatrix, Wlk. xv. 1776 (1858); Hmpsn. Moths Ind. ii. p. 394.

Head, thorax, and abdomen purplish red-brown; pectus whitish tinged with rufous, the spurs and tarsi ringed with white. Fore wing purplish red-brown; antemedial line with white striga from costa, then hardly traceable, oblique and with a brown shade before it below the cell; traces of an oblique medial line from lower angle of cell to inner margin towards which there are some yellow scales on it; postmedial line slight, white and strongly bent outwards below costa, then forming an oblique dark shade with a fine white line beyond it to vein 2, then almost obsolete, some white points beyond it on costa and a chocolate-brown mark below costa; subterminal line white, incurved from costa to vein 6 near termen, almost obsolete to vein 3, then incurved, with chocolate-brown patch beyond it, and ending at tornus. Hind wing pure white, the costal and terminal areas purplish brown, a brown discoidal spot; the underside with elliptical black discoidal spot and punctiform postmedial line defined on outer side by white.

Hab. Bombay, Canara (*Ward*), 2 ♀ type; Travancore, Pirmád (*Imray*), 1 ♂; Ceylon, Pundaloya (*Green*), 1 ♂. *Exp.* 26 millim.

Sect. V. Antennæ of male simple and laminate.

A. Fore wing with the inner antemedial and outer postmedial lines strong and chocolate-brown on inner area ..... *plumbea.*
B. Fore wing with the inner antemedial and outer postmedial lines indistinct on inner area .... *oxylopha.*

6210. **Bombotelia plumbea.** (Plate CLXXIV. fig. 16.)

Penicillaria plumbea, Wlk. xxxiii. 816 (1865).

♂. Head and thorax reddish brown, the scales tipped with grey; tarsi ringed with white; abdomen brown suffused with grey, the 1st segment with chocolate-brown bands, the ventral surface grey-white. Fore wing red-brown suffused with purplish grey; an oblique chocolate-brown antemedial line from cell to inner margin with traces of another line beyond it; two black discoidal points; traces of an oblique minutely waved line from just beyond lower angle of cell to inner margin; traces of a double postmedial line, bent outwards below costa and incurved below vein 4, the outer line chocolate-brown with minute white streaks on the veins from vein 4 to inner margin; an oblique wedge-shaped chocolate-brown patch from costa before apex to discal fold and with an oblique fascia from its inner edge to termen at vein 3; a fine dark terminal line. Hind wing with the basal half grey suffused with brown, the terminal half fuscous brown; traces of a brown medial line and pale postmedial line; the underside purplish white irrorated with brown, the terminal area suffused with brown, a black discoidal point and traces of medial and postmedial lines more distinct on inner area.

Hab. Queensland, Moreton Bay (*Diggle*), 1 ♀ type. *Exp.* 32 millim.

6211. Bombotelia oxylopha.

Eutelia oxylopha, Turner, Pr. Linn. Soc. N. S. W. 1902, p. 88.

Head and thorax dull red-brown; palpi blackish, pale in front; legs blackish; abdomen fuscous brown with the dorsal crests towards extremity black, the ventral surface pale. Fore wing dull red-brown slightly irrorated with black and with traces of numerous waved lines; two black discoidal points with an indistinct pale spot between them and a more distinct straight line from lower angle of cell to inner margin; the terminal area greyish with a terminal

Fig. 8.—*Bombotelia oxylopha*, ♂. ½.

series of black points; cilia blackish. Hind wing fuscous brown, the costal area pale; traces of postmedial and subterminal lines; two black points with a pale point between them above tornus; the termen greyish with a terminal series of black points; underside paler, the inner area whitish, minutely waved medial, postmedial, and subterminal lines.

Hab. Queensland, Bulimba (*Turner*), 1 ♂. *Exp.* 32 millim. Type ♀ † in Coll. Illidge.

Genus **EUTELIA.**

	Type.
Eutelia, Hübn. Verz. p. 259 (1827)	*adulatrix.*
Eurhipia, Boisd. Ind. Meth. p. 73 (1829)	*adulatrix.*
Penicillaria, Guen. Noct. ii. p. 302 (1852)	*ablatrix.*
Eleale, Wlk. Journ. Linn. Soc., Zool. vi. p. 135 (1862)	*plusioides.*
Ripogenus, Grote, Proc. Ent. Soc. Phil. iv. p. 326 (1865)	*pulcherrima.*
Phalga, Moore, P. Z. S. 1881, p. 375	*sinuosa.*
Zobia, Saalm. Lep. Madag. p. 384 (1891)	*snelleni.*
Targallodes, Holl. Pysche, vii. p. 31 (1894)	*oculatrix.*
Silacida, Swinh. Cat. Het. Mus. Oxon. ii. p. 86 (1900)	*inextricata.*
Atacira, Swinh. Cat. Het. Mus. Oxon. ii. p. 87 (1900)	*approximata.*
Alotsa, Swinh. Cat. Het. Mus. Oxon. ii. p. 87 (1900)	*discistriga.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about middle of frons and rather broadly scaled, the 3rd long; frons smooth, with tuft of hair above; eyes large, round; antennæ of male typically minutely serrate and fasciculate, the apical part simple, the basal joint with large tuft of scales; thorax clothed almost entirely with scales, the prothorax with flattened crest, the metathorax with paired crests; tibiæ moderately fringed with hair; abdomen with dorsal crests at base and on terminal segments and with more or less developed paired lateral anal tufts. Fore wing with the apex rounded, the termen crenulate, excised towards tornus; veins 3 and 5 from near angle of

cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with the cell less than half length of wing; veins 3, 4 from angle of cell or shortly stalked; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Antennæ of male bipectinate with rather long branches, the apical third almost simple.

A. Fore wing of male with the inner area greatly dilated and the margin lobed, the termen slightly sinuous towards apex and extremely oblique below vein 3, a fold below extremity of cell, veins 2, 3, 4, 5 closely approximated for some distance, then vein 2 strongly curved downwards; an anal tuft of long spatulate scales between the paired tufts, and long lateral tufts of hair from base of abdomen, the coxæ strongly tufted with hair.

6212. Eutelia distorta, n. sp.

♂. Head black-brown; antennæ with the basal joint white in front; thorax dark reddish brown mixed with grey, paler behind, the tegulæ with pair of dorsal black streaks; pectus greyish ochreous; legs black-brown with some greyish ochreous mixed; abdomen grey with some brown mixed, dorsal and subdorsal series of black striæ and a lateral spot on 3rd segment, the ventral surface with three brown streaks. Fore wing grey irrorated and suffused with reddish and fuscous brown, the inner half paler; a slight black

Fig. 9.—*Eutelia distorta*, ♂. ½.

antemedial line from costa to median nervure, bidentate below the costa, and a diffused shade below the cell; an oblique black bar across end of cell, an indistinct dark line, oblique from middle of costa to beyond upper angle of cell, then very faint and oblique to inner magin; postmedial line double and oblique from costa to vein 6, then interrupted and oblique from vein 2 to inner margin; some whitish points beyond it on costa; a slight obliquely curved whitish subterminal line from costa to vein 6; a terminal series of black bars defined on inner side by white and some whitish striæ parallel to the oblique part of termen below vein 2. Hind wing fuscous brown with a greyish tinge, some ochreous and black striæ on terminal parts of veins 2 and 1; a terminal series of slight blackish lunules defined on inner side by grey; the underside fuscous, the base, inner area, and a postmedial band grey, with two punctiform medial and three postmedial lines and terminal series of triangular black marks.

Hab. Gold Coast, Kumasi (*Whiteside*), 1 ♂ type. *Exp.* 30 millim.

B. Fore wing of male normal.
  a. (*Phalga*). Fore wing with the termen crenulate, excurved at vein 7 and middle and oblique towards tornus.
    *a*¹. Fore wing without grey patch at tornus ..... *sinuosa.*
    *b*¹. Fore wing with grey patch at tornus ..... *ferridorsata.*

6213. Eutelia sinuosa.

Phalga sinuosa, Moore, P. Z. S. 1881, p. 375, pl. 37. f. 7; Hmpsn. Moths Ind. ii. p. 410.
Eutelia viridinota, Swinh. Trans. Ent. Soc. 1895, p. 52.

Head, thorax, and abdomen deep purplish red-brown mixed with some grey; patagia with some black scales; pectus ochreous white; ventral surface of abdomen white irrorated with red-brown and with subventral series of small dark spots. Fore wing deep purplish red-brown; antemedial line slight, black, highly dentate, double at costa; reniform apple-green defined by black, constricted at middle; medial line black, arising from upper extremity of reniform, dentate and excurved to vein 3, then oblique and slightly excurved above vein 1; postmedial line double, black,

Fig. 10.—*Eutelia sinuosa*, ♂. ½

dentate and excurved from costa to vein 3, then oblique and slightly excurved above vein 1, some white points beyond it on costa; subterminal line black, dentate, slightly defined on each side by white at costa, then very indistinct except below vein 6 and between veins 3 and 2; a fine black terminal line; cilia whitish between veins 7 and 5. Hind wing dark red-brown, the base whitish; postmedial and subterminal black striæ at inner margin; a fine terminal black line with whitish bar before it from vein 2 to tornus; cilia rufous, whitish at tips; the underside whitish thickly irrorated and in parts suffused with red-brown, a double curved crenulate postmedial black line and rather maculate subterminal line.

Hab. Sikhim, 1800′ (*Dudgeon*), 1 ♀; Bhután, 2500′ (*Dudgeon*), 1 ♂; Assam, Khásis, 1 ♂ type *viridinota*; Borneo, Paku (*Shelford*) 1 ♀. *Exp.* 30-34 millim.

6214. Eutelia ferridorsata. (Plate CLXXIV. fig. 17.)

Eutelia ferridorsata, Hmpsn. A. M. N. H. (7) xvi. p. 384 (1905).

♀. Head blackish slightly mixed with grey; thorax ferruginous, the tegulæ tinged with fuscous; pectus and legs fuscous and greyish; abdomen pale ferruginous, the dorsal crests and slight subdorsal segmental striæ dark, the ventral surface suffused with black. Fore wing greenish grey suffused with black and rufous and with numerous dark striæ; a double waved antemedial line; reniform green defined by black and with some fuscous in centre, narrow, irregularly elliptical; postmedial line indistinct, defined by rufous on outer side, minutely waved, excurved from costa to vein 4, then incurved; a slight minutely waved black subterminal line, incurved below vein 4 and with the area beyond it greyish towards tornus; a terminal series of small black lunules; cilia rufous and black. Hind wing rufous suffused with fuscous, the inner area rather paler; some dark striæ on vein 2 and on inner margin towards tornus, a pale mark on termen near tornus; cilia rufous; the underside rufous irrorated with brown, the inner area whitish, a discoidal point, medial line excurved below costa, double minutely waved postmedial line, the inner line indistinct, traces of a subterminal line, and a terminal series of black lunules on whitish marks.

Hab. S. Nigeria, Old Calabar (*Sampson*), 1 ♀ type. *Exp.* 26 millim.

b. Fore wing with the termen strongly crenulate, oblique below vein 3.
  *a*¹. Fore wing with triangular black patch defined by white on costa towards apex ..... *leucographa*.
  *b*¹. Fore wing without triangular black patch defined by white on costa towards apex ..... *tripartita*.

6215. Eutelia leucographa. (Plate CLXXIV. fig. 18.)

Eutelia leucographa, Hmpsn. A. M. N. H. (7) xvi. p. 374 (1905).

♂. Palpi white, the 1st two joints and the 3rd joint near tip brown at sides; frons white with the frontal tuft tipped with brown; vertex of head and antennæ black; thorax black with a few white scales and white spot on metathorax; pectus white behind; legs black banded with white; abdomen black-brown slightly variegated with white, the ventral surface mostly white. Fore wing red-brown variegated with white especially on antemedial area and on postmedial area from vein 3 to inner margin, the white areas with dark striæ; subbasal line represented by a white striga from costa; antemedial line unusually near base, strong, black, slightly angled in cell, then oblique and not quite reaching inner margin; orbicular an ill-defined white spot with dark points on it; reniform an elliptical white patch with black spots in its upper and lower parts; medial line indistinct except at costa and

inner margin, oblique from costa to cell, then inwardly oblique and obscurely double; postmedial line strong, black except between veins 3 and 1, oblique from costa to vein 6, incurved between veins 3 and 1, defined on outer side by a fine white line from costa to vein 3; subterminal line white from costa to vein 3, with a black band on its inner side expanding towards costa and vein 3, oblique to vein 6, then outwardly oblique and irregular, below vein 3 represented by a black spot above tornus; cilia chequered brown and whitish. Hind wing white, the terminal area fuscous, extending to middle at costa and narrowing to tornus, a slightly waved white subterminal band from vein 6 to tornus, the area beyond it browner, two black striæ above tornus; a fine crenulate black terminal line; cilia white at base, blackish at tips; the underside white irrorated with black, the apical area suffused with brown, two black discoidal bars, a waved medial line excurved at middle, double minutely waved postmedial line, and traces of a subterminal line.

♀. Fore wing less variegated with white.

Hab. Br. E. Africa, El Quaso, Masai (*Betton*), 3 ♂, 1 ♀ type, Njoro (*Cholmley*), 1 ♂; Cape Colony, Steynsburg, 2 ♂. *Exp.* 36–40 millim.

6216. Eutelia tripartita.

Ingura tripartita, Semp. Reise Phil., Schmett. ii. p. 532, pl. 60. f. 8 (1900).
Eutelia diplographa, Hmpsn. A. M. N. H. (7) xvi. p. 375 (1905).
Targalla pratti, Beth.-Baker, Nov. Zool. xiii. p. 227 (1906).

Head and thorax grey mixed with brown and fuscous; palpi with the 2nd joint blackish at sides; tegulæ black at base, with brown medial line and dark tips; abdomen grey suffused with fuscous, the ventral surface paler. Fore wing grey-white suffused with brown especially on basal and costal areas; subbasal line represented by two striæ from costa; antemedial line double, oblique, the inner line brown, diffused, the outer strong, black;

Fig. 11.—*Eutelia tripartita*, ♂. ½.

orbicular a slight brown annulus; reniform defined by fuscous and with some brown in centre; medial line strongly excurved round the reniform; postmedial line double, the inner line black, the outer brown, excurved from costa to vein 4, then incurved; subterminal line represented by blackish patches, forming bars from costa to vein 7 and vein 3 to inner margin, excurved between those points; a fine waved terminal line; cilia chequered white and

brown. Hind wing white, the terminal area suffused with brown; the underside white, the costal and terminal areas irrorated with brown, a discoidal annulus, crenulate postmedial line with slight streaks on the veins, traces of subterminal line and terminal series of points.

Hab. Sikhim (*Pilcher*), 1 ♂; Perak, Larut Hills (*S. S. Flower*), 1 ♀ type; Philippines; Br. N. Guinea, Ekeikei (*Pratt*) 3 ♂, 1 ♀, Dinawa (*Pratt*), 1 ♀, Mt. Kebea (*Pratt*), 1 ♀. *Exp.* 32–40 millim.

Larva. Semp. Reise Phil., Schmett. ii. pl. R. f. 4.

Grey-brown; head blackish, thoracic somites rather swollen, anal somite humped; subdorsal series of brown warts forming short processes on thoracic and anal somites; a lateral brown line from somite 2 to anal somite which has two obliquely placed lateral warts. Food-plant, *Spondias*.

c. (*Elcale*). Fore wing with the termen slightly crenulate, oblique below vein 3.
  a^1. Fore wing with the subapical area orange-red ..... *fulvipicta.*
  b^1. Fore wing with the subapical area pale yellow ..... *plusioides.*

6217. Eutelia fulvipicta. (Plate CLXXIV. fig. 19.)

Eutelia fulvipicta, Hmpsn. Moths Ind. ii. p. 394 (1894).

♂. Head, tegulæ, and front of thorax deep red-brown, the hinder part of thorax orange-red; palpi white at tips; antennæ with the basal joint yellowish; tarsi ringed with white; abdomen rufous. Fore wing deep rufous, the basal half of inner area yellow irrorated with red, the postmedial area yellow suffused with red from costa to vein 4; antemedial line black with white striga from costa, angled on median nervure, then inwardly oblique; a white striga from middle of costa, slight streak on extremity of median nervure and black line from submedian fold to inner margin angled outwards at vein 1; postmedial line black, arising at vein 7, angled outwards at vein 6, then inwardly oblique, waved and slightly defined on outer side by white below vein 4, some white points beyond it on costa and a faint yellowish line excurved to discal fold, then oblique, between vein 4 and submedian fold white and slightly angled outwards at vein 2; subterminal line white, excurved at discal fold to near termen, then obsolete to below vein 4, dentate at vein 3 below which it forms a rather triangular spot, and ending at tornus; cilia red-brown mixed with whitish. Hind wing with the basal half white, the terminal half red-brown; an oblique white striga across extremity of vein 2 with some fiery red beyond it; a fine white line at base of cilia; the underside white, the costal and terminal areas rufous, a blackish discoidal spot, crenulate postmedial line, and diffused subterminal band.

Hab. Assam, Khásis, 1 ♂, Nágas, type † ♂ in Coll. Rothschild. *Exp.* 30 millim.

6218. Eutelia plusioides.

Eleale plusioides, Wlk. Journ. Linn. Soc., Zool. vi. p. 135 (1862); Swinh. Cat. Het. Mus. Oxon. ii. p. 85, pl. ii. f. 24.

♂. Head and thorax yellow tinged with rufous, sides of palpi and frons, antennæ, and tegulæ rufous, the last with fuscous scales at tips; abdomen yellow suffused with rufous. Fore wing yellow, the basal area, the costal area to beyond middle and the inner half of terminal area suffused with rufous; a diffused black streak in basal half of cell; the antemedial line arising from a white spot on costa, excurved to median nervure, then oblique; slight white streaks above and below subcostal nervure towards end of cell, with a small white spot on costa above end of cell and two points on discocellulars; postmedial line indistinct and excurved to vein 4, then oblique and angled outwards on vein 1, another

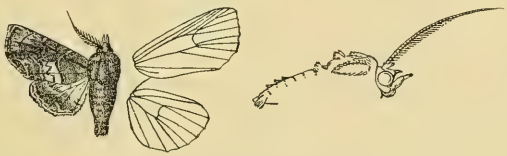


Fig. 12.—*Eutelia plusioides*, ♂. ½.

line beyond it, brown and strongly excurved from costa to vein 4, then white and incurved, with another white line beyond it from vein 4 to inner margin; a dark streak in discal fold from cell to near termen and an oblique wedge-shaped mark from lower angle of cell to termen at vein 4; a curved brown line close to termen from costa to vein 3, then an incurved white line to tornus, the area beyond it dark; the apex grey with a white line between it and the subterminal line. Hind wing pale yellow, the costal and terminal areas suffused with rufous; some fiery red near extremity of vein 2 crossed by an oblique white striga to termen at submedian fold; the underside with discoidal spot and curved postmedial line.

Hab. Borneo, Sarawak (*Wallace*), type † ♂ in Mus. Oxon.; D'Entrecasteaux Is., Fergusson I. (*Meek*), 1 ♂. *Exp.* 39 millim.

d. (*Penicillaria*). Fore wing with the termen slightly sinuous from apex to vein 3.
  a^1. Fore wing with inverted lunulate subterminal white mark filled in with dark brown below the angle of postmedial line.
    a^2. Fore wing with the antemedial band from cell to inner margin chocolate-brown ..... *absconaens.*
    b^2. Fore wing with the antemedial band from cell to inner margin deep red..... *pulcherrima.*
  b^1. Fore wing without inverted lunulate subterminal white mark.
    a^2. Fore wing without small subterminal triangular blackish spots defined by white between veins 6 and 3.

a^3. Fore wing with the area beyond subterminal line between vein 3 and tornus deep chocolate-brown ..... *blandula*.
b^3. Fore wing with the area beyond subterminal line between vein 3 and tornus concolorous with the postmedial area.
a^4. Fore wing with triangular whitish or yellowish white patch at middle of inner area ..... *ablatrix*.
b^4. Fore wing with triangular bright yellow patch at middle of inner area ..... *cuprea*.
c^4. Fore wing with oblique white band at middle of inner area ..... *albisecta*.
d^4. Fore wing without pale triangular patch or band at middle of inner area ..... *auratrix*.
b^2. Fore wing with small subterminal blackish spots defined by white between veins 6 and 3.
a^3. Fore wing deep chocolate-red ..... *pyrastis*.
b^3. Fore wing reddish brown mixed with grey ..... *furcata*.

6219. Eutelia abscondens.

Penicillaria abscondens, Wlk. xv. 1774 (1858); Druce, Biol. Centr.-Am., Het. i. p. 324, pl. 30. f. 3.

♀. Head, tegulæ, and front of thorax pale rufous; palpi white in front; basal joint of antennæ white; tegulæ slightly edged with white, a white line across thorax; the hinder part of thorax deep purplish chocolate-brown with some white hair on outer edges of patagia; pectus and legs white, the fore tibiæ red-brown with a white bar, the spurs and 1st joint of tarsi with black rings; abdomen purplish red, the segments edged by fine white lines, deeper purple-red lateral patches on 1st three segments, the crests blackish, the ventral surface white irrorated with brown, the terminal segment brown, the medial segments with subventral brown points. Fore wing with the costal half pale rufous, the inner half deep chocolate red-brown; subbasal line represented by a slight oblique white striga from cell to inner margin, some violaceous suffusion beyond it to the antemedial line which is slight, oblique and white from cell to inner margin, hardly traceable on costal half; medial area with veins 2 and 1 streaked with white; medial line hardly traceable on costal half, white and curved from cell to vein 1, a triangular white patch crossed by a brown bar beyond it on inner margin; two small brown discoidal spots slightly edged with white; postmedial line double, very indistinct on costal area, then filled in with white, slightly bent outwards below costa and oblique to vein 6 where it is angled, then bent inwards, excurved at veins 4, 3, and oblique and sinuous to inner margin, an oblique white line beyond it from costa to vein 6, a blackish patch edged above and at sides by a white hoop below vein 6 and a triangular white patch irrorated with brown from vein 3 to inner margin with a faint sinuous blackish line on its inner edge; some white points on costa towards apex and a triangular greyish white patch on termen from apex to below vein 6, with some black points on termen; a small black spot edged with white on termen below

vein 3; a fine white line at base of cilia. Hind wing white, the veins irrorated with brown, the terminal area blackish brown with some purplish red on termen; slight dark points at angles of cell, traces of two postmedial series of black points and three black striæ at inner margin towards tornus; a slight white line from vein 3 to termen at submedian fold; cilia white at base and tips; the underside with the costal area irrorated with brown, the terminal area tinged with red, a red-brown discoidal spot, curved punctiform medial line, double punctiform postmedial line, and sinuous subterminal line defined on outer side by white, a terminal series of small triangular spots.

Hab. Costa Rica; Panama, La Chorrera (*Dolby-Tyler*), 1 ♀; Colombia, Bogotá; Venezuela, Aroa, 1 ♀; Br. Guiana, Bartica (*Kaye*), 1 ♀; Brazil, Castro Paraña. *Exp.* 34–36 millim.

Larva. Pale brown (in spirits, ? faded from green); stigmata blackish; head blackish with pale V-shaped mark in front and pale marks above; four pairs of prolegs.

6220. **Eutelia pulcherrima.** (Plate CLXXIV. fig. 20.)

Ripogenus pulcherrimus, Grote, Proc. Ent. Soc. Phil. iv. p. 326 (April, 1865); Smith, Cat. Noct. N. Am. p. 239.
Eutelia dentifera, Wlk. xxxiii. p. 818 (July, 1865).

Head, tegulæ, and front of thorax pale rufous mixed with white; palpi chocolate-red; basal joint of antennæ white; tegulæ at tips and a bar across thorax white; the hinder part of thorax chocolate-red; pectus white; tibiæ chocolate-red, the spurs and tarsi white with a black ring near tips of former and on 1st joint of latter; abdomen pale rufous with chocolate-red bands on 1st and 2nd segments and subbasal patches on the 3rd and 4th. Fore wing pale rufous; the inner basal area redder with oblique white striæ above vein 1 at and near base; a slight oblique white antemedial line from costa to median nervure and two well-separated oblique white lines with chocolate-red band between them from cell to inner margin; a white streak on vein 1 from the inner antemedial line to the outer postmedial line, and a white streak on vein 2; two small brown discoidal spots defined by white and connected by a white striga; a white spot followed by an ochreous spot at middle of inner margin; postmedial line double, white, oblique from costa to vein 6 where it is angled outwards to near subterminal line, then retracted and oblique and sinuous to inner margin, the inner line obsolescent towards costa and bent outwards below costa and the outer line connected by a white spot above vein 5 with the subterminal line, some white points beyond it on costa; subterminal line white, incurved from costa to termen at vein 5, the area beyond it being white with some small chocolate-red spots on termen, then interrupted and running from the outer edge of the white spot to inner margin near tornus, slightly dentate at veins 4, 3 and the area beyond it chocolate-red; a small chocolate-red spot defined by white on termen below vein 3 and a fine white line

at base of cilia. Hind wing white, the terminal area fuscous brown suffused with chocolate-red towards termen; some brown irroration on median nervure and beyond upper angle of cell; a postmedial black striga at inner margin and two towards tornus; a white bar from vein 3 to tornus; cilia white at base, red at tips; the underside with large red discoidal spot and traces of punctiform medial and postmedial lines.

Hab. U.S.A., New York (*Doubleday, Grote*), 1 ♂, 1 ♀, type and type *dentifera*, New Jersey. *Exp.* 36 millim.

6221. Eutelia blandula. (Plate CLXXIV. fig. 21.)

Eurhipia blandula, Herr.-Schäff. Corresp.-blatt. zool.-min. Ver. Regensb. xxii. p. 180 (1868).
Eutelia caustiplaga, Hmpsn. A. M. N. H. (7) xvi. p. 373 (1905).

♂ Head and thorax bright chocolate-red mixed with a little grey; palpi with the 2nd joint in front and tuft on basal joint of antennæ white; pectus, base of legs, and tarsi white, the tibiæ with white bar, the tarsi with black spot on 1st joint; abdomen red with deep chocolate-red subbasal patches at base with a little grey before each, the ventral surface pale grey-brown. Fore wing red with some grey suffusion in places; the median nervure and veins rising from it white; subbasal line represented by a grey striga from costa; antemedial line fine, grey, very oblique from costa to median nervure, then inwardly oblique, a diffused oblique grey-white fascia beyond it from costa to lower angle of cell and a chocolate-red patch on inner area followed by a triangular white patch with some yellow and a dark striga on it; reniform narrow, constricted at middle, chocolate-red with white annulus, a white striga above it from costa, and a large chocolate-red patch beyond it with a little yellowish in centre; postmedial line unusually near termen, white, obliquely curved to vein 6, then inwardly oblique below vein 3, indistinct, dark, slightly waved, with a white point on its outer edge at vein 5 and some whitish suffusion below vein 3; some white points on costa towards apex which is grey with a white line across apical area to termen at vein 5; a grey subterminal line from the white point on postmedial line, angled inwards below vein 4 and below vein 3 incurved, prominent and white, the area beyond it deep chocolate-red; some triangular black points on apical half of termen; a fine white line at base of cilia. Hind wing pure white, the terminal area brown suffused with fiery red; a white subterminal line from vein 3, angled outwards to near termen at submedian fold; a fine white line at base of cilia; the underside with the costal and terminal areas grey; a black discoidal spot, a small spot at middle of submedian fold, traces of two waved postmedial lines with some red on them at discal and submedian folds, some black points on termen.

Hab. Cuba, Santiago (*Schaus*), 3 ♂ type *caustiplaga*, Tanamo (*Schaus*), 1 ♂, Matanzas. *Exp.* 36 millim.

6222. Eutelia ablatrix

Penicillaria ablatrix, Guen. Noct. ii. p. 303 (1852).
Penicillaria rufatrix, Wlk. xv. 1775 (1858).

♂. Head, thorax, and abdomen pale brick-red; tegulæ slightly edged with white, the patagia with white bars; pectus white, the spurs and tarsi banded white and blackish; abdomen with white dorsal spot on 4th segment, followed by two minute black crests, then a white point, the ventral surface whitish towards base. Fore wing pale brick-red, the costal area irrorated with black to end of cell; an oblique pale subbasal striga from costa and a black point on vein 1; antemedial line white irrorated with black, oblique from costa to discoidal fold in end of cell where it is acutely angled, then inwardly oblique; a fine oblique white line before it from cell to inner margin; reniform white with red spots slightly edged with black in its upper and lower parts and a short white streak before it in discal fold, an oblique white striga above it from costa; the inner area from just beyond antemedial line to near termen and

Fig. 13.—*Eutelia ablatrix*, ♂. ½.

extending to vein 2 and beyond the cell to vein 3, semihyaline white traversed by four slight waved lines; medial line excurved from vein 7 well beyond the cell to vein 4, then double and incurved on the whitish patch; postmedial line white defined on outer side by brownish and oblique from costa to vein 6 where it is angled outwards, then very indistinct, with white point beyond it above vein 5 and incurved below vein 3, some white points beyond it on costa; subterminal line white and incurved from costa to just below vein 6 near termen, then almost obsolete to vein 3 and straight to tornus; the apex grey with small terminal dark lunules defined by white and dark patch at vein 6; cilia white at base except at middle. Hind wing hyaline white, the terminal area brick-red; traces of some postmedial black points on the veins and two black striæ at inner margin near tornus; cilia with a fine white line at base; the underside with the costal area ochreous white slightly irrorated with black and blackish spots just beyond middle.

♀. Much deeper crimson-red; fore wing with the patch on inner area much less hyaline, yellowish on its basal part and whitish outwardly.

Hab. Panama, La Chorrera (*Dolby-Tyler*), 1 ♂, 1 ♀; Jamaica, 1 ♀ type *rufatrix*; Haiti (*Tweedie*), 1 ♀; Sta. Lucia (*Cowie*), 2 ♂, 1 ♀; Grenada (*H. H. Smith*), 1 ♀ *Exp.* 30 millim.

6223. Eutelia cuprea. (Plate CLXXIV. fig. 22.)

Penicillaria cuprea, Möschl. Abh. Senck. Ges. xvi. p. 179 (1890).
Eutelia chrysotermina, Hmpsn. A. M. N. H. (7) xvi. p. 372 (1905).

♂. Head and thorax deep red-brown mixed with a little grey, the head and a patch on metathorax redder; palpi pale in front; hind tarsi with black spot at base; abdomen pale red, the basal half darker with a red patch at base, the crests and subbasal series of small spots blackish. Fore wing deep red-brown suffused with grey on basal half of costal area, the terminal area below vein 6 broadly golden yellow suffused with some red, on inner margin extending to before middle; a subbasal grey striga from costa; an indistinct highly curved dark antemedial line, below the cell bounding the dark area; reniform defined by white at sides, very narrow and constricted at middle; postmedial line almost obsolete towards costa, below the cell fine, double, defined by red-brown on inner side, very oblique and minutely waved, another line beyond it very oblique from costa to vein 6 near termen, then inwardly oblique and rather diffused; a prominent white subterminal bar from costa to vein 6, the area beyond it deep chocolate with two black lunules defined by white on termen, the subterminal line then indistinct, yellow and slightly sinuous; a fine slightly sinuous brown terminal line. Hind wing pure white; the costal area dark brown; the terminal area below vein 5 fiery red with sinuous yellow subterminal line; a black spot on inner margin beyond middle; the underside with the costal and terminal areas suffused with fiery red, some black suffusion in base of cell, an oblique elliptical black discoidal spot defined by white and with black bar from costa just beyond it; an indistinct dark postmedial line with blackish spot below vein 6, an indistinct sinuous yellow subterminal line, some black points on termen towards apex.

Hab. Porto Rico; Fr. Guiana, St. Jean Maroni (*Schaus*), 1 ♂ type *chrysotermina*, St. Laurent Maroni. *Exp.* 32–34 millim.

*6224. Eutelia albisecta. (Plate CLXXIV. fig. 23.)

Eutelia albisecta, Dogn. Mém. Soc. Ent. Belg. xviii. p. 152 (1911).

♀. Head, thorax, and abdomen grey mixed with brown; tarsi whitish ringed with brown. Fore wing grey-brown mixed with some white; a wedge-shaped white fascia in discal fold from before middle to the postmedial line and a slight fascia in medial part of submedian fold; a subbasal black striga from costa and diffused band from cell to inner margin; an indistinct rather diffused curved blackish antemedial band, interrupted at the fascia and double below the cell, an oblique white band beyond it from vein 2 to inner margin; small black spots defined by white at the angles of cell; a patch of dark suffusion beyond upper angle of cell before the medial line, which is blackish defined on outer side by white towards costa and inner margin, angled outwards beyond upper

angle of cell, then oblique and slightly sinuous towards inner margin; postmedial line white with some golden yellow before it below costa, angled outwards at vein 6, then oblique, a triangular brown patch beyond it from costa with some white points at costa; subterminal line white, angled outwards to termen at discal fold and excurved at middle; some grey suffusion at apex and a terminal series of small dark lunules slightly defined on inner side by grey; a fine whitish line at base of cilia. Hind wing semihyaline white with dark brown terminal band from apex to below vein 2; some dark points on terminal part of vein 2 and a bar at tornus; cilia with a fine white line at base; the underside with some dark irroration on costa, a small discoidal spot, and traces of a sinuous subterminal line.

Hab. Argentina, Tucuman (*Girard*), type † ♀ in Coll. Dognin. *Exp.* 26 millim.

6225. Eutelia auratrix.

Penicillaria auratrix, Wlk. xv. 1775 (1858); Druce, Biol. Centr.-Am., Het. i. p. 324.
Penicillaria nattereri, Feld. Reis. Nov. pl. 110. f. 19 (1874).

Head, thorax, and abdomen brown tinged with purplish grey; tarsi, spurs, and hind tibiæ banded with white; ventral surface of abdomen rufous. Fore wing fuscous brown tinged with grey; subbasal line slight, white, angled outwards below costa; antemedial line dark defined on inner side by whitish and on outer by whitish suffusion, slightly sinuous, oblique to median nervure where it is acutely angled, then inwardly oblique; reniform black with white annulus, a rather narrow bar somewhat constricted at middle, two dark brown marks beyond it, the upper followed by a fulvous yellow mark; medial line white slightly defined on each side by brown, arising at discal fold, oblique and sinuous to inner margin, the area beyond it tinged with purple; postmedial line fine, white, oblique from costa to vein 6 where it is acutely angled outwards, then strongly incurved, slightly sinuous and brown below vein 3, an oblique wedged-shaped chocolate patch beyond it from costa to vein 6 with some white points on costa; subterminal line fine, white, slightly incurved below costa, angled outwards to termen at vein 6 and inwards in discal fold, then outwards at veins 4, 3 and ending at tornus; a terminal series of small blackish lunules slightly defined on inner side by white; cilia brown with dark patches at vein 6 and middle. Hind wing semihyaline white, the cell and costal area brown, the terminal area fuscous brown with a purplish tinge; traces of a postmedial line on inner area with point at vein 2 and two striæ at inner margin; a terminal series of slight dark lunules and oblique white striga below vein 2; the underside with the costal and terminal areas brown tinged with purple and irrorated with white, a large black discoidal spot and punctiform postmedial line.

Hab. Mexico, Vera Cruz (*Schumann*), 1 ♂; Guatemala, San Isidro (*Champion*), 1 ♂, San Geronimo (*Champion*), 1 ♀, Godman-Salvin Coll.; Panama, Cana Mines (*Tylecote*), 1 ♀; Colombia, Bogotá; Trinidad (*Urich*), 1 ♀; Br. Guiana, Demerara (*Rodway*), 1 ♂, Rockstone (*Kaye*), 1 ♂; Fr. Guiana, Cayenne (*Schaus*), 2 ♂; S. Laurent Maroni (*Le Moult*), 2 ♂; Brazil, Amazons, Ega (*Bates*), 1 ♂ type, Espiritu Santo, 1 ♂. *Exp.* 30 millim.

6226. Eutelia pyrastis. (Plate CLXXIV. fig. 24.)

Eutelia pyrastis, Hmpsn. A. M. N. H. (7) xvi. p. 374 (1905).

♂. Head rufous; palpi and basal joint of antennæ in front white; tegulæ and prothorax grey, the rest of thorax suffused with rufous; abdomen grey slightly tinged with rufous, rufous dorsal patches on 2nd and 3rd segments and a black point on 5th segment. Fore wing suffused in part with chocolate-red; the basal area chocolate-red except costal area; subbasal line represented by a whitish striga from costa; antemedial line oblique from costa to median nervure, then obliquely curved, a yellow patch beyond it on inner area; the veins of terminal half slightly streaked with white; an oblique dark striga from middle of costa; reniform a narrow lunule constricted at middle, with dark centre and whitish annulus, postmedial line with small white and brown mark on costa, then indistinct, strongly bent outwards below costa excurved and slightly waved to vein 4, then strongly incurved and almost obsolete; a chocolate-red triangle defined by white from costa before apex to vein 6, with three small white-defined blackish marks below it followed by a white line to tornus; the apical half of termen grey, the inner half chocolate-red; some black points on termen. Hind wing with the basal half whitish, the veins and terminal half brown; some black striæ on inner margin towards tornus; a white bar above tornus; the termen tinged with red with some white and three black points at middle; the underside white slightly irrorated with fuscous, a small discoidal lunule, indistinct waved medial and postmedial lines, and terminal series of points.

♀. Rather deeper chocolate-red.

Hab. U.S.A., Florida, Miami (*Schaus*), 1 ♂; Bahamas, Nassau (*Sir G. Carter*), 1 ♂, 1 ♀ type. *Exp.* ♂ 32, ♀ 36 millim.

6227. Eutelia furcata.

Penicillaria furcata, Wlk. xxxiii. 815 (1865).
Eutelia distracta, Wlk. xxxiii. 819 (1865).
Penicillaria nattereri, Druce, Biol. Centr.-Am., Het. ii. p. 502, pl. 96. f. 3 (nec Feld.).

Head, tegulæ, and front of thorax pale rufous, the hinder part of thorax pale purplish red; palpi white in front; antennæ brown

with the basal joint white in front; tegulæ at tips and a line across thorax white; tarsi ringed with white; abdomen pale rufous with fine white segmental lines, oblique dark subdorsal streaks on basal segments, the crests black, the ventral surface whitish. Fore wing rufous mixed with grey-brown and grey; subbasal line represented by a whitish striga from costa with black points on its inner side; antemedial line whitish defined on outer side by blackish, curved, angled inwards on subcostal nervure, another indistinct whitish line before it from cell to inner margin, the area between them redder, an oblique white shade beyond it from costa to lower angle of cell; reniform bar-shaped, whitish defined by some black scales and with brown and black spots in upper and lower parts; a pale or whitish patch at middle of inner margin; an oblique sinuous medial blackish line from beyond the cell to inner margin; postmedial line with black and white spot at costa, then indistinct and defined on outer side by whitish, bent outwards below costa, oblique to vein 6 where it is angled outwards, then inwardly oblique and sinuous, another line beyond it, white and oblique from costa to vein 6 where it is angled outwards, then dark slightly defined on outer side by whitish, inwardly oblique and sinuous, some white points beyond it on costa and small black spots below veins 6 and 5, the lower defined by a hoop-shaped white mark; subterminal line white and incurved from costa to vein 5 and vein 3 to inner margin, the area beyond it bluish white with some dark irroration and small terminal black spots defined by white on apical half, red on inner half; cilia rufous and grey with fine white line at base. Hind wing with the basal half whitish irrorated with brown and with brown streaks on the veins, the terminal half brown tinged with red towards tornus; a white bar from vein 3 to tornus; cilia white at base, chequered red and white at tips; the underside white irrorated with black, the terminal area tinged with brown, a brown discoidal spot, curved medial line, double crenulate postmedial line, and terminal series of points.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♂, 1 ♀, Godman-Salvin Coll.; Haiti (*Tweedie*), 1 ♂, 2 ♀, type and type *distracta*. *Exp.* 34–38 millim.

Sect. II. (*Zobia*). Antennæ of male pectinate with rather long branches dilated at extremity on upper side, serrate and fasciculate on lower side, the apical half ciliated; fore wing with the termen crenulate, excurved at veins 7 and 3, then oblique to tornus.

6228. **Eutelia snelleni.**

Ingura snelleni, Saalm. Stett. ent. Zeit. 1881, p. 433; id. Lep. Madag. p. 385, f. 105.

♂. Head and thorax dark rufous, vertex of head fiery red; tegulæ with whitish medial line and tips; metathorax with some whitish; pectus mostly white; tarsi and hind tibiæ banded with

white; abdomen red-brown tinged with grey, two large blackish crests on subterminal segments, the ventral surface orange-red except anal segment. Fore wing orange-red, the basal half and costal area to near apex almost wholly suffused with chocolate-brown; an oblique white striga from middle of costa with small triangular spot beyond it; two black points at lower angle of cell; an inwardly oblique, slightly waved rufous line from below end of cell to inner margin bounding the dark area; postmedial line with two oblique white striæ from costa, then single, waved, rufous, at vein 3 retracted to below angle of cell, then double, a curved chocolate mark on its inner side below costa and an oblique wedge-shaped grey mark on its outer side from costa to angle of termen; a small triangular white mark with brown point on it on costa towards apex with a double rufous line filled in with white arising from it, oblique to vein 6, then slightly incurved and with an

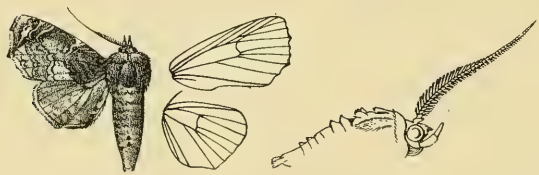


Fig. 14.—*Eutelia snelleni*, ♂. ½.

oblique black streak on its outer side, then single, excurved, and below vein 4 incurved; a waved subterminal line arising from a white point on costa and excurved at middle, the area beyond it rufous from apex to the angle of termen; a fine terminal line; cilia yellow, rufous towards apex and at angle of termen. Hind wing fiery red with yellow patches beyond lower angle of cell and near tornus; a chocolate spot at lower angle of cell and two striæ with white between them on inner margin above tornus; the underside yellow, the costal and terminal areas suffused with rufous, a black discoidal lunule, minutely waved, curved medial and postmedial lines, and curved subterminal line expanding into a spot at vein 2.

Hab. Sierra Leone (*Bartlett*), 2 ♂; Old Calabar (*Crompton*), 1 ♂; Madagascar. *Exp.* 32 millim.

Sect. III. Antennæ of male bipectinate with short branches, the apical third almost simple.

A. Fore wing with the termen crenulate from apex to vein 3 where it is angled, then oblique and slightly sinuous.
  a. Hind wing fiery red with the base white ..... *gabriela*.
  b. Hind wing white with the terminal area brown.
    a^1. Fore wing ochreous white suffused with brick-red..... *instructa*.
    b^1. Fore wing brown mixed with some ochreous ..... *geyeri*.

*6229. Eutelia gabriela. (Plate CLXXIV. fig. 25.)

Penicillaria gabriela, Holl. ined.

♂. Head and thorax white tinged with rufous, some of the scales tipped with black; palpi black at base and with black ring just before tips; antennæ fuscous; tibiæ and tarsi whitish indistinctly ringed with black; abdomen whitish tinged with rufous and brown. Fore wing ochreous white tinged with rufous and slightly irrorated with brown; subbasal line represented by a blackish point on costa and striga in cell; antemedial line brown, excurved from costa to median nervure, then erect, a rufous mark beyond it in cell before the minute black annulate orbicular; reniform with rufous centre and slight white annulus defined by black, lunulate; medial line brown, oblique from costa to reniform, inwardly oblique and slightly sinuous from lower angle of cell to inner margin; postmedial line double filled in with white, oblique from costa to vein 6 and defined on outer side by an oblique blackish fascia extending to termen at vein 4, the line then somewhat dentate and produced to slight dark streaks on the veins, incurved below vein 3; some white points on postmedial part of costa; subterminal line white from costa to discal fold, defined on inner side by a rufous bar from costa, then by black, below discal fold pale defined on inner side by brown, dentate at veins 4, 3, then incurved; some minute dark points on termen towards apex faintly defined on inner side by whitish and dark striæ towards tornus; cilia blackish at tips below apex and at middle. Hind wing fiery red, whitish at base and on costal area; a slight dark antemedial line and traces of a brownish subterminal line from vein 4 to tornus defined on outer side by ochreous; a slight dark terminal line defined on inner side by ochreous; cilia rufous; the underside whitish tinged with rufous and slightly irrorated with black, a black discoidal striga and somewhat crenulate medial, postmedial, and subterminal lines.

Hab. Congo, Bulo Country (*Good*), type † ♂ in Coll. Holland. *Exp.* 30 millim.

6230. Eutelia instructa. (Plate CLXXIV. fig. 26.)

Eutelia instructa, Wlk. Journ. Linn. Soc., Zool. vii. p. 68 (1864); Swinh. Cat. Het. Mus. Oxon. ii. p. 87.

Penicillaria excitans, Butl. P. Z. S. 1886, p. 381; Hmpsn. Moths Ind. ii. p. 395.

Head rufous with some white and black scales; palpi white in front; antennæ with the tuft on basal joint tipped with white; tegulæ white with grey line at middle and grey tips; thorax rufous, the prothorax with grey and white band; pectus and legs white, the fore tibiæ rufous with black bars, the mid and hind tibiæ and tarsi banded with rufous; abdomen with the basal segments violaceous grey with a slight dorsal white streak, the

terminal segments rufous with the crests black, lateral brown patches edged with white on the two basal segments followed by a white point on 3rd segment, the ventral surface ochreous white. Fore wing whitish suffused with brick-red and ochreous; the costal half of wing to end of cell white with brown suffusion in parts, leaving fine white streaks on median nervure and base of vein 2; subbasal line double, white, oblique, from costa to vein 1; antemedial line slight, double, white, angled outwards below costa and on median nervure to beyond origin of vein 2, then oblique and placed on a brown band; reniform white with some grey in its upper and lower parts, its upper extremity produced; a faint sinuous brown line from vein 6 beyond the cell to inner margin; postmedial line indistinctly double filled in with whitish, oblique from below costa to vein 6 where it is angled, incurved at discal fold, then oblique, sinuous and with blue-black spot at inner margin; the postmedial area with a faint brownish line, followed by a fine black line defined on inner side by white and double between veins 6 and 4, both these lines being angled outwards at veins 6 and 4, then oblique and sinuous; subterminal line white, oblique from vein 7 to discal fold where it is angled inwards, slight and dentate at veins 4, 3 and ending at tornus; a series of black and white points before termen from apex to vein 3; a fine black terminal line; cilia with patches of brown at vein 6 and middle. Hind wing white, the terminal area suffused with pale fuscous brown and reddish ochreous; two white striæ on inner margin at tornus with a black spot beyond them; a series of small subterminal yellowish white spots between veins 6 and 2, the spot below vein 3 displaced inwards, and a white bar at tornus; a fine whitish line just before termen from apex to vein 2; cilia tipped with white; the underside white with some black irroration on the veins, the costal and terminal areas tinged with ochreous brown, a black discoidal spot, curved punctiform medial line, double postmedial line, obsolescent towards costa, angled outwards at vein 6, then strong and blackish, the inner line tinged with crimson to vein 3, a faint waved whitish subterminal line, and some black points before termen from apex to vein 5.

Hab. Punjab, Kulu, Sultanpur (*G. Young*), 2 ♂, Simla (*Harford*), 3 ♂, 2 ♀, Dharmsála (*Hocking*), 3 ♀, Abbotabad (*Yerbury*), 1 ♂ type *excitans*; Borneo, Sarawak, type † ♂, which does not bear a Borneo label, in Mus. Oxon. *Exp.* 38–46 millim.

6231. Eutelia geyeri.

Eurhipia geyeri, Feld. Reis. Nov. pl. 110. f. 23 (1874).

Head and thorax red-brown mixed with grey; palpi white and grey in front; antennæ brown; tegulæ with slight white medial line; a white line across thorax; pectus white with some black-tipped scales; tarsi white tinged with brown; abdomen red-brown

mixed with grey, a grey patch at base of dorsum with slight brown subdorsal marks on it followed by a white mark and lateral white points on 3rd and 4th segments. Fore wing red-brown mixed with ochreous and some white and grey, the veins with slight pale streaks; subbasal line represented by two whitish striæ from costa, the outer one angled outwards, a triangular mark in cell defined by white and double line from cell to inner margin; antemedial line whitish, angled outwards below costa, bent outwards at median nervure, then double and oblique to inner margin; reniform defined by whitish at sides and with whitish patch at middle, bar-shaped, its upper extremity produced and its lower extremity angled inwards; medial line dark, oblique and sinuous from discal fold beyond the cell to inner margin, some crimson beyond it between veins 4 and 2; postmedial line slight, double filled in with whitish, excurved at veins 6 and 4, then incurved, slightly excurved above vein 1 and with blue-black spot at inner margin, followed by two other lines excurved at veins 6 and 4, the inner line whitish from costa to vein 4, the outer white defined on outer side by black from costa to vein 2, and two white points on costa; subterminal

Fig. 15.—*Eutelia geyeri*, ♂. ½.

line white, incurved from costa to vein 6 where it is bent inwards to the outer postmedial line, slightly excurved at veins 4, 3 and ending at tornus, the apex greyish; a series of blackish points defined on inner side by white striæ from apex to vein 4 and black spots on termen at vein 6 and middle; cilia with white line at base and some black at vein 6 and middle. Hind wing white tinged with brown especially on the veins, the terminal area broadly suffused with fuscous brown; a slight curved postmedial line; two white striæ at tornus with black between and beyond them and on the cilia; a pale subterminal line becoming a prominent white bar from vein 3 to tornus; a series of black and white striæ just before termen from apex to vein 2 where there is a scarlet patch; cilia white with a rufous line through them and some scarlet at veins 2 and 1; the underside ochreous white with some large black scales on the veins, an elliptical black and brown discoidal spot, sinuous medial line, double postmedial line with some red on it at middle, pale waved subterminal line, and series of black points before termen.

Hab. Japan, Hakodaté (*Leech*), 2 ♂, 1 ♀, Oiwake (*Pryer*), 1 ♂, 1 ♀, Futai (*Lewis*), 1 ♂, Nikko (*Maries*), 1 ♂, 2 ♀, Yokohama (*Jonas, Pryer*), 1 ♂, 2 ♀; C. China, Kiukiang (*Pratt*), 1 ♀; W. China, Ta-chien-lu (*Pratt*), 1 ♂, 1 ♀; Punjab, Kulu, Sultanpur (*G. Young*), 2 ♂, 1 ♀, Simla, 1 ♀, Dharmsála (*Hocking*), 1 ♀; Assam (*Badgley*), 1 ♂. *Exp.* 36–46 millim.

B. Fore wing with the termen not crenulate, obtusely angled at vein 3, then oblique to tornus.

6232. Eutelia rivata.

Eutelia rivata, Hampsn. Ann. S. Afr. Mus. ii. p. 307 (1902).

Head, thorax, and abdomen dark brown mixed with grey; tarsi ringed with whitish; abdomen with white subdorsal streaks and fine segmental lines on basal segments. Fore wing brown mixed with grey, the median nervure, bases of veins arising from it and vein 1 on medial area streaked with white; a rather wedge-shaped whitish fascia in cell from before antemedial line to the reniform; a rather diffused oblique whitish line from cell to inner margin before the antemedial line, which is double, black-brown filled in with whitish and strongly excurved; reniform with brown centre and whitish annulus, narrow and rather produced at upper extremity; medial line indistinct, dark, sinuous, from lower angle of

Fig. 16.—*Eutelia rivata*, ♂. ½.

cell to inner margin; postmedial line double filled it with whitish, the outer line indistinct, oblique from costa to vein 6, then inwardly oblique and sinuous, a similar faint dark line beyond it; subterminal line white, angled outwards at vein 6, inwards at discal fold and excurved at middle; a terminal series of indistinct dark lunules; a fine white line at base of cilia. Hind wing creamy white, the terminal area broadly suffused with fuscous brown with diffused inner edge; a faint discoidal spot; a sinuous whitish subterminal line forming a more distinct bar from vein 3 to tornus where there is a red patch; a fine white line at base of cilia; the underside whitish irrorated with brown, a large black discoidal lunule, double sinuous postmedial line, diffused subterminal band, and terminal series of points from apex to vein 3.

Hab. Natal, Durban (*Gooch, Bowker*), 1 ♂, 1 ♀ type. *Exp.* 36 millim.

Sect. IV. (*Atacira*). Antennæ of male serrate with very long fasciculate cilia; fore wing with the termen slightly crenulate, oblique below vein 3.

A. Fore wing with dentate black mark before subterminal line at discal fold.
  a. Fore wing with the reniform filled in with deep black. *melanephra.*
  b. Fore wing with the reniform filled in with red-brown.
    a^1. Fore wing leaden grey.
      a^2. Fore wing without flesh-colour on the inner half of postmedial and subterminal lines ..... *chalybsa.*
      b^2. Fore wing with flesh-colour on the inner half of postmedial and subterminal lines ..... *grabczeusci.*
    b^1. Fore wing grey mixed with rufous ..... *approximata.*
B. Fore wing with oblique black striga on subterminal line below discal fold ..... *dimidiata.*
C. Fore wing without black mark at middle of subterminal line.
  a. Fore wing without oblique dark fascia from postmedial line to termen at vein 3.
    a^1. Hind wing not red.
      a^2. Fore wing with the reniform not filled in with green.
        a^3. Tegulæ with blackish band at base ..... *geræa.*
        b^3. Tegulæ with black dorsal patch..... *histrio.*
        c^3. Tegulæ without black markings.
          a^4. Fore wing with the reniform filled in with black ..... *melanopis.*
          b^4. Fore wing with the reniform filled in with white ..... *albiluna.*
      b^2. Fore wing with the reniform filled in with green.
        a^3. Fore wing with the postmedial line produced to extremely long teeth below vein 6 ..... *menalcas.*
        b^3. Fore wing with the postmedial line moderately dentate below vein 6..... *obliquata.*
        c^3. Fore wing with the postmedial line minutely waved below vein 6 ..... *chlorobasis.*
    b^1. Hind wing red.
      a^2. Fore wing with the antemedial line prominently defined by white on inner side ..... *leucodelta.*
      b^2. Fore wing with the antemedial line not defined by white on inner side ..... *metasarca.*
  b. Fore wing with oblique dark fascia from postmedial line at discal fold to termen at vein 3 ..... *leighi.*

6233. **Eutelia melanephra**, n. sp. (Plate CLXXIV. fig. 27.)

Head white; palpi black at base and with black point at extremity of 2nd joint; antennæ black; thorax and abdomen creamy white tinged with rufous; tibiæ and tarsi blackish, the spurs and tarsi ringed with white; abdomen with the crests black. Fore wing white tinged in parts with ochreous and rufous and slightly irrorated with black; subbasal line represented by a black point on costa; antemedial line with two black points on costa, then very indistinct, oblique to median nervure, then inwardly oblique; medial line black, diffused, oblique from costa to reniform incurved below the cell; reniform black with white annulus, semi-elliptical, the outer edge straight; postmedial line with two black strigæ filled in with white at costa, then hardly traceable and minutely waved, excurved

to vein 4, then incurved; a triangular olive-brown patch from costa to vein 6, with two white points on costa which is blackish before the subterminal line, which is white, incurved to vein 6, then defined on inner side by black forming a wedge-shaped mark at discal fold, obsolescent and waved from vein 3 to tornus; a terminal series of black points; cilia brown at tips. Hind wing white suffused with fuscous except on basal and inner areas; an oblique blackish medial line; two black striæ filled in with white at inner margin towards tornus; a lunulate whitish subterminal line between veins 5 and 2; a terminal series of black lunules defined on inner side by whitish at middle; cilia fuscous brown with a white line at base; the underside ochreous white irrorated with black, an elliptical black discoidal spot defined at sides by white on the black medial band, a double crenulate postmedial line with the diffused lunulate subterminal line just beyond it.

Hab. Sikhim (*Lidderdale*), 1 ♂ type; Ceylon, Gampola (*Mackwood*), 1 ♂, 1 ♀. *Exp.* 28 millim.

6234. Eutelia chalybsa.

Penicillaria chalybsa, Hmpsn. Ill. Het. B. M. viii. p. 80, pl. 146. f. 1 (1891).
Eutelia dulcilinea, Hmpsn. Moths Ind. ii. p. 395 (nec Wlk.).

♂. Head white; palpi with black patch at base and point at extremity of 2nd joint; antennæ brown; thorax and abdomen leaden grey; tarsi fuscous, the spurs and tarsi ringed with white; abdomen with the basal crest rufous, the others black. Fore wing leaden grey; subbasal line represented by a black and white striga

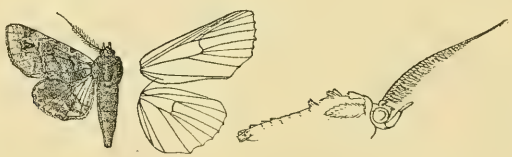


Fig. 17.—*Eutelia chalybsa*, ♂. ½.

from costa and rufous spot in and below cell; antemedial line white defined on inner side by rufous and on outer by black, the black interrupted below costa and submedian fold, oblique from costa to discal fold, then inwardly oblique; medial line blackish, oblique to reniform, then inwardly oblique; reniform rufous with white annulus, elliptical, the outer side almost straight; postmedial line indistinctly double, black filled in with white, oblique from just below costa to vein 6, then minutely dentate at the veins, incurved below vein 4; postmedial area with triangular red-brown patch from costa to vein 6 with three white points on costa; subterminal line white, defined on inner side by a wedge-shaped black patch

at discal fold, then a slight lunule, then some rufous suffusion, oblique to vein 6, then slightly waved and incurved below vein 3; cilia rufous. Hind wing grey suffused with fuscous brown, the base and inner area to beyond middle white; an indistinct postmedial line with black and white striga at inner margin; subterminal line represented by a white spot at apex and sinuous line from vein 4 to tornus; a terminal series of slight blackish lunules; the underside white irrorated with black, the costal area and medial part of terminal area ochreous, the apical area suffused with black, a black discoidal spot with bar above it from costa, diffused double crenulate postmedial line, and diffused sinuous subterminal line.

Hab. Madras, Nilgiris (*Hampson*), 2 ♂ type; Ceylon, Nawalapitiya (*Pole*), 1 ♂, Pundaloya (*Green*), 1 ♂. *Exp.* 28–32 millim.

*6235. Eutelia grabczeusci. (Plate CLXXIV. fig. 28.)

Eutelia grabczeuwskii, Püng. Iris, xvi. p. 289, pl. vi. f. 5 (1904).

♂. Head and thorax leaden grey; palpi blackish at base, then whitish tinged with pink and irrorated with black; frons whitish; antennæ with basal red tuft; tibiæ and tarsi blackish ringed with white; abdomen brownish grey irrorated with black, the dorsal crests black, the ventral surface tinged with pink. Fore wing leaden grey; a slight waved subbasal line from costa to submedian fold followed by a round reddish brown patch in and below cell; antemedial line represented by a black spot on costa, a striga between discal and submedian folds and one from the brown patch to inner margin; orbicular and reniform with white annuli, the former minute, round, with red centre, the latter olive-brown; a strong black medial shade, angled outwards in cell, then oblique; postmedial line double, interrupted, filled in with flesh-colour and with streaks of the same colour before it except towards costa, oblique from costa to vein 6, then somewhat dentate, excurved to vein 4, then oblique; subterminal line slight, white, with an olive patch with white points on it before it at costa, a triangular black patch in discal fold with a small dentate mark below it, then a flesh-coloured band; cilia olive and fuscous. Hind wing grey suffused with olive-brown, a flesh-coloured subterminal mark on vein 2 and two blackish striæ above tornus; cilia fuscous; the underside purplish pink irrorated with black, the inner area white, a black discoidal spot, medial line excurved at middle, and double minutely dentate postmedial line.

Hab. Japan, Nikko in Coll. Püngeler. *Exp.* 32 millim.

6236. Eutelia approximata. (Plate CLXXIV. fig. 30.)

Eutelia approximata, Wlk. Journ. Linn. Soc., Zool. vii. p. 65 (1864); Swinh. Cat. Het. Mus. Oxon. ii. p. 87.
Eutelia dulcilinea, Wlk. Journ. Linn. Soc., Zool. vii. p. 66 (1864).
Eutelia olivaceiplaga, Beth.-Baker, Nov. Zool. xiii. p. 228 (1906).

♂. Head, thorax, and abdomen grey mixed with rufous; palpi

with blackish patch at base; tibiæ banded with blackish; the tarsi blackish ringed with white; abdomen with the crests black. Fore wing grey mixed with rufous, the outer half of medial area rufous; antemedial line indistinct, brownish, rather diffused, oblique from costa to median nervure, then inwardly oblique; medial line black, excurved from costa to reniform, then incurved; reniform rufous with white annulus, elliptical; postmedial line double, brownish filled in with grey, excurved from costa to vein 4, then incurved; postmedial area whiter with triangular red-brown patch from costa to vein 6, with two white points on the costa; subterminal line white defined on inner side by red-brown forming a wedge-shaped patch below discal fold extending almost to postmedial line and a band below vein 3, oblique to vein 6, then slightly waved and excurved at middle; a series of black points just before termen; cilia tinged with fuscous. Hind wing grey suffused with brown; traces of a brown postmedial line; a lunulate white line defined on each side by brown from vein 3 to termen at vein 1; a lunulate dark terminal line; the underside with elliptical black discoidal spot, curved postmedial line, and sinuous subterminal line from vein 6 to inner margin.

Hab. Borneo, Sarawak (*Wallace*), 1 ♂; Br. New Guinea, type † *olivaceiplaga* in Coll. Bethune-Baker. *Exp.* 26 millim. Type and type † *dulcilinea* in Mus. Oxon.

6237. Eutelia dimidiata. (Plate CLXXIV. fig. 29.)

Eutelia dimidiata, Wlk. Journ. Linn. Soc., Zool. vii. p. 66 (1864).

Head, thorax, and abdomen purplish grey mixed with some rufous; palpi with fuscous patch at base; spurs and tarsi ringed with white; abdomen with the crests black. Fore wing purplish grey irrorated with red-brown; antemedial line indistinct and rather diffused, excurved from costa to submedian fold, then rather diffused, a slight dark spot beyond it in cell; medial line black, excurved from costa to reniform and oblique below the cell; reniform chocolate-brown with white annulus, semi-elliptical, its outer edge straight; postmedial line double filled in with grey, excurved from costa to vein 4, then incurved; the postmedial area with triangular chocolate-brown patch defined by white from costa to vein 6, with two white points on costa; subterminal line whitish defined on inner side by brown, angled inwards at discal fold and defined below it by an oblique black striga, then waved: a terminal series of small black spots. Hind wing grey suffused with reddish brown; a waved whitish line from vein 3 to tornus and terminal series of small black lunules; the underside grey tinged with rufous and irrorated with brown, a black discoidal spot with pale striga in centre, indistinct double waved postmedial line and rather diffused sinuous subterminal line.

Hab. Selangore, Kuala Lumpur (*Durham*), 1 ♀; Singapore (*Ridley*), 1 ♂, 1 ♀; Borneo, Sarawak (*Wallace*), type † ♀ in Mus. Oxon. *Exp.* ♂ 24, ♀ 26 millim.

6238. Eutelia geræa. (Plate CLXXIV. fig. 31.)

Eutelia geræa, Hmpsn. A. M. N. H. (7) xvi. p. 377 (1905).

♂. Head, thorax, and abdomen reddish brown suffused with grey, the last with the dorsal crests small, dark. Fore wing brownish grey with some dark irroration; a dark point at base of cell; antemedial line oblique to subcostal nervure, hardly traceable except at costa; orbicular represented by a small spot; reniform well-developed, rounded, rufous defined by blackish; medial line oblique from costa to lower angle of cell, then incurved; postmedial line indistinctly double, minutely waved, excurved from below costa to vein 4, then incurved; a triangular chocolate patch defined by grey on costa before apex, the subterminal line arising from it and represented by small rufous dentate marks; excurved at middle; a terminal series of small chocolate lunules. Hind wing rufous, the basal and costal areas paler; the underside rufous, the inner area whitish, a black discoidal lunule, and curved postmedial and subterminal lines showing through to upperside.

♀. Head, thorax, and fore wing grey-white, the last with the markings much more distinct, some rufous suffusion between medial and postmedial lines.

Hab. Mauritius, Curepipe (*Tullock*), 1 ♂, 1 ♀ type. *Exp.* 26 millim.

6239. Eutelia histrio.

Penicillaria histrio, Saalm. Lep. Madag. p. 386, f. 225 (1891).

♂. Head, thorax, and abdomen grey-white mixed with pale brown; palpi black at base; tegulæ with triangular dorsal blackish patch; pectus blackish in front; tarsi blackish ringed with white; abdomen with slight white segmental lines and the crests black. Fore wing grey-white mixed with pale brown and sparsely irrorated with black; antemedial line with black spot at costa, then indistinct, whitish, oblique, sinuous; orbicular and reniform blackish with white annuli, the former small, round, the latter oblique elliptical, with an oblique black bar to it from costa; postmedial line double, blackish filled in with white, oblique from costa to vein 6, incurved and strongly dentate below vein 4; a triangular brown patch on costal area with some white points on costa before the subterminal line, which is pale defined by some blackish points, oblique to vein 7, then waved; a series of black points just before termen; cilia brown. Hind wing grey suffused and irrorated with fuscous brown, a sinuous postmedial line defined on outer side by whitish, subterminal series of slight fuscous spots, a fine terminal black line; the underside tinged with rufous except the inner and terminal areas, a black discoidal spot, crenulate postmedial line and subterminal spots at discal fold and tornus.

♀. Fore wing with rufous centres to orbicular and reniform.

Hab. Natal, Durban (*Gooch*, *Leigh*), 1 ♂, 1 ♀; Madagascar. *Exp.* 30 millim.

6240. Eutelia melanopis. (Plate CLXXIV. fig. 32.)

Eutelia melanopis, Hmpsn. A. M. N. H. (7) xvi. p. 380 (1905).

♂. Head, thorax, and abdomen brown suffused with grey; palpi black at base; tarsi black with whitish rings; abdomen with the small dorsal crests black, and paired ventral black points on basal and three medial segments. Fore wing grey tinged and irrorated with brown; antemedial line indistinct, oblique from costa to submedian fold and with small black spot on costa beyond it; a minute annulus in middle of cell; reniform narrow, black with white annulus and with oblique black striga above it from costa; a medial line from cell to inner margin; postmedial line indistinct, double filled in with whitish, with black mark on its outer side at costa, oblique to vein 6 where it is angled, angled at vein 4, then incurved to below end of cell; a conical deep chocolate patch with white points on costa before apex, the subterminal line arising from its outer side, very indistinct, pale slightly defined on each side by brown, white at costa, irregularly waved; a terminal series of black points; the termen slightly angled at vein 4. Hind wing grey-brown; a fine waved terminal line from apex to submedian fold; some dark points on inner margin near tornus and on extremity of vein 2; the underside grey tinged with rufous and irrorated with fuscous, a black discoidal spot, minutely waved double postmedial line, and traces of subterminal line with small black spot at tornus.

Hab. Sierra Leone (*Cator*), 1 ♂ type. *Exp.* 24 millim.

6241. Eutelia albiluna. (Plate CLXXV. fig. 1.)

Eutelia albiluna, Hmpsn. A. M. N. H. (7) xvi. p. 382 (1905).

♀. Head and thorax white slightly mixed with brown; abdomen white tinged with fuscous except at base where there are some black scales, the ventral surface whiter with sublateral and two ventral series of black points. Fore wing whitish irrorated with fuscous and suffused with fuscous brown on medial area and beyond the cell; some brownish suffusion at base of costa; antemedial line indistinctly double, angled outwards below costa, then oblique; orbicular a minute white spot defined by black; an oblique medial line from cell to inner margin; reniform a prominent white lunule; postmedial line indistinct, double, oblique from costa to vein 6, then inwardly oblique, dentate below vein 4; a black-brown patch below costa towards apex, its outer edge rather dentate and defined by the whitish subterminal line which is defined by fuscous on inner side, angled inwards in discal fold, below vein 4 obliquely incurved, strongly defined by black on inner side and with the area beyond it darker; a terminal series of small black lunules. Hind wing fuscous brown with some black and white striæ on inner margin near tornus, a black and white subterminal mark on vein 2, and a fine waved terminal line; the underside whitish tinged with brown

and irrorated with fuscous, a discoidal point, slight waved medial and postmedial lines, and traces of subterminal line.

Hab. S. Nigeria, Sapele (*Sampson*), 2 ♀ type. *Exp.* 22 millim.

6242. Eutelia menalcas. (Plate CLXXV. fig. 2.)

Penicillaria menalcas, Holl. Psyche, vii. p. 141, pl. v. f. 20 (1894).

♀. Head, thorax, and abdomen grey-white slightly irrorated with brown; palpi black at base; metathorax with rufous crest; tibiæ with black marks at extremity; fore tarsi blackish; abdomen with sublateral and paired ventral series of black points. Fore wing whitish slightly tinged with reddish brown and irrorated with fuscous; a black point at base; antemedial and medial black striæ on costa with a very oblique black-brown line from below latter to inner margin, rather diffused outwardly; a black point in cell towards extremity; reniform with grey centre and whitish annulus defined at sides by black, somewhat constricted at middle; subterminal line double filled in with whitish, oblique from costa to vein 6, then inwardly oblique and strongly dentate, a blackish patch on costa beyond it with some white points on it, the subterminal line arising from its outer edge, whitish slightly defined by fuscous on inner side, angled inwards at discal fold, oblique and waved below vein 4; a series of black points just before termen. Hind wing fuscous brown, the basal and inner areas whitish; some black points on inner margin towards tornus; a waved black terminal line from apex to submedian fold. Underside whitish tinged with rufous and irrorated with fuscous; fore wing with black discoidal spot, sinuous postmedial line, subterminal series of spots and almost terminal series of points; hind wing with black discoidal spot, medial line obsolescent towards costa and excurved beyond cell, maculate postmedial and subterminal lines and terminal series of points, the lines obscurely visible on upperside.

Hab. S. Nigeria, Lagos (*Strachan*), 1 ♀; Gaboon. *Exp.* 30 millim.

6243. Eutelia obliquata.

Eutelia obliquata, Wlk. Journ. Linn. Soc., Zool. vii. p. 66 (1864); Swinh. Cat. Het. Mus. Oxon. ii. p. 86, pl. ii. f. 6.

♀. Head and thorax ochreous white mixed with rufous; palpi with some black-brown near base of 2nd joint; fore tibiæ and the tarsi blackish ringed with white; abdomen ochreous white mixed with rufous and some fuscous, the ventral surface white suffused with purplish red except at base and with subventral series of small blackish spots. Fore wing white tinged with pale purplish pink, the terminal area slightly irrorated with blackish; subbasal line represented by black points on costa and in cell; antemedial line with black striga from costa and oblique line from subcostal nervure further from base to inner margin with some pale yellow-green before it in submedian interspace; a black point in middle of

cell; reniform indistinct, pale greenish with rufous striga in centre; postmedial line obsolete towards costa, blackish, oblique and dentate from vein 6 to inner margin; subterminal line represented by small obliquely placed blackish spots above and below vein 7 on a greenish patch, then hardly traceable, waved. Hind wing whitish suffused with fuscous brown except on basal and inner areas; an indistinct curved medial line and traces of postmedial line; a terminal series of slight blackish lunules defined on inner side by whitish; the underside white suffused with purple-red except on inner area, a black discoidal spot defined by white, indistinct curved medial line, curved crenulate postmedial line, and traces of subterminal line.

Hab. Singapore (*Ridley*), 1 ♀; Borneo, Sarawak (*Wallace*), type ♀ in Mus. Oxon. *Exp.* 34 millim.

6244. **Eutelia chlorobasis.** (Plate CLXXV. fig. 3.)

Eutelia chlorobasis, Hmpsn. A. M. N. H. (7) xvi. p. 381 (1905).

♀. Head and thorax whitish mixed with brown; palpi black at base; abdomen grey with slight subdorsal series of fuscous points, small lateral black spots on 4th segment and some sublateral spots, the ventral surface suffused with red and with series of white points. Fore wing pale reddish brown slightly irrorated with fuscous; the basal area suffused with greenish grey; an oblique blackish antemedial line defined by white on inner side except towards costa; a slight medial line from cell to inner margin; orbicular and reniform greenish white defined by fuscous, the former a minute spot, the latter elliptical with grey centre; postmedial line double filled in with grey, oblique from costa to vein 6 where it is angled, then minutely waved, incurved below vein 4; some greenish grey suffusion beyond it on costa; a black patch defined on outer side by a white striga on costa before apex, the slight grey subterminal line arising from its outer edge, excurved at middle and incurved below vein 3, traversing a patch of fuscous suffusion on terminal area from vein 5 to inner margin; a fine waved black terminal line. Hind wing brown suffused with fuscous with fine waved dark terminal line. Underside of fore wing with the terminal area brick-red, with oblique white subapical striga; hind wing suffused with rufous, a black discoidal point, fine waved medial and postmedial lines, and terminal series of lunules.

Hab. S. Nigeria, Sapele (*Sampson*), 1 ♀ type, Ilesha (*Humphrey*), 1 ♀. *Exp.* 22 millim.

6245. **Eutelia leucodelta.** (Plate CLXXV. fig. 4.)

Eutelia leucodelta, Hmpsn. A. M. N. H. (7) xvi. p. 382 (1905).

♀. Head, thorax, and abdomen grey-white; tegulæ with slight brown medial line and brownish tips; tibiæ with slight black marks; abdomen with the basal crest tipped with rufous, the slight dorsal crests rufous, the ventral surface white with sublateral and

two ventral series of black points. Fore wing grey-white, the basal and costal areas suffused with pale olive-brown and slightly irrorated with fuscous; antemedial line prominently defined by white on inner side except towards costa, incurved to costa, then oblique, with a slightly rufous-tinged band beyond it and black point at inner margin; reniform a C-shaped white mark incompletely defined by black and with olive centre; some rufous suffusion beyond the cell; postmedial line double, indistinct, oblique from costa to vein 6, then inwardly oblique, dentate below vein 4; an olive patch on costa before the indistinct waved white subterminal line which has some slight black marks on it between veins 4 and 2, the area beyond it greyer; a terminal series of small black lunules. Hind wing brick-red, the base and termen whitish; some slight black marks on inner margin towards tornus; a waved black terminal line. Underside whitish irrorated with rufous; fore wing with the disk suffused with rufous, the white discoidal lunule with black centre, a waved black postmedial line excurved from costa to vein 4, then oblique; hind wing with black discoidal spot, slight waved medial and double postmedial lines.

Hab. S. Nigeria, Sapele (*Sampson*), 1 ♀ type. *Exp.* 30 millim.

6246. Eutelia metasarca. (Plate CLXXV. fig. 5.)

Eutelia metasarca, Hmpsn. A. M. N. H. (7) xvi. p. 379 (1905).

Head, thorax, and abdomen pale red-brown tinged with grey; palpi black at base; abdomen with sublateral and two ventral series of black points on medial segments. Fore wing grey tinged with pale rufous; a black point in base of cell; antemedial line indistinct, double, slightly angled outwards below costa, then oblique; a minute annulus in middle of cell; reniform C-shaped with brownish centre and white annulus defined by black; traces of a medial line; postmedial line double, oblique from costa to vein 6, then inwardly oblique, waved; traces of a pale waved subterminal line, whiter and with brown shade before it at costa; a terminal series of small black lunules; the termen slightly angled at vein 4. Hind wing flesh-red, the basal and inner areas slightly paler; a terminal series of dark lunules; the underside whitish irrorated with rufous, a black discoidal spot on a slightly waved medial line and maculate postmedial line.

Hab. S. Nigeria, Sapele (*Sampson*), 1 ♂, 3 ♀ type. *Exp.* 20 millim.

6247. Eutelia leighi. (Plate CLXXV. fig. 6.)

Eutelia leighi, Hmpsn. Ann. S. Afr. Mus. iii. p. 428 (1905).

♂. Head, tegulæ, and front of thorax deep rufous mixed with white, mesothorax with a grey and fuscous band, the metathorax pale rufous; pectus whitish with some fiery red in front; the tarsi blackish ringed with white; abdomen fuscous with some dorsal ochreous marks on basal segments defining small triangular spots

on 2nd and 3rd segments, the crests reddish, the ventral surface ochreous tinged with red. Fore wing with the costal area olive-grey to subterminal line, the basal inner area and apical area white, the rest of wing ochreous tinged with reddish, some rufous irroration on basal half; subbasal line brown, oblique, from costa to vein 1; antemedial line represented by a black point on costa and line from cell to inner margin with red-brown band before it, incurved below submedian fold; orbicular and reniform with rufous centres and white annuli defined by some blackish scales except above, the former elongate and conjoined to the latter; an oblique bar from middle of costa and oblique red-brown line from lower angle of cell to inner margin; a black fascia from reniform to postmedial line with red-brown fascia above it; postmedial line double and filled in with white from costa to vein 4, then single, oblique to vein 6, incurved at discal fold, incurved and dentate below vein 4, some white points beyond it on costa and a very oblique fascia from vein 6 to termen at vein 3; subterminal line slight, white, waved from costa to the oblique fascia, then incurved to tornus and with brown band on its inner side; a terminal series of slight black lunules except towards apex; cilia pale reddish, deeper red at the oblique fascia and tornus. Hind wing white with some dark irroration in cell and pale red suffusion beyond it, the terminal area fuscous brown tinged with red; faint dark medial and postmedial lines; a white subterminal bar between veins 3 and 1; cilia deep red with a fine white line at base; the underside white slightly irrorated with black, the terminal area tinged with red, a discoidal spot, sinuous medial line, and crenulate postmedial line with the rather diffused subterminal line just beyond it.

Hab. Natal, Durban (*Leigh*), 1 ♂ type. *Exp.* 30 millim.

Sect. V. Antennæ of male serrate and fasciculate with the cilia moderate.

A. Fore wing with the termen crenulate, oblique below vein 3.
a. Fore wing with fans of scales at middle and end of cell.
*a*¹. Fore wing red-brown mixed with ochreous..... *pictatrix*.
*b*¹. Fore wing brown mixed with grey ..... *flavillatrix*.

6248. Eutelia pictatrix. (Plate CLXXV. fig. 7.)

Eutelia pictatrix, Hmpsn. J. Bomb. Nat. Hist. Soc. xiv. p. 212 (1902).

Head, thorax, and abdomen deep rufous mixed with some pale pinkish; tarsi ringed with white; abdomen with subdorsal tufts of blue-black scales at base and dorsal white patch on 3rd and 4th segments. Fore wing deep rufous mixed with pale pinkish, the discal and submedian folds with pale streaks; subbasal line represented by a slight striga from costa; two double antemedial lines filled in with pinkish, angled outwards below costa, excurved below the cell and bent inwards to inner margin; fans of deep rufous scales in upper part of cell at middle and extremity; medial line double and oblique from costa to discal fold, then single, incurved below the cell; postmedial line double filled in with

pinkish, dentate, oblique to vein 6 and incurved below vein 4, another indistinctly double line beyond it, oblique and waved to vein 6 and incurved below vein 4, two white points beyond it on costa and two white streaks below costa; subterminal line pale pinkish, minutely waved, excurved at vein 7 and ending at tornus; the terminal area with some blackish, irrorated with white at middle; a fine black terminal line; cilia rufous mixed with black except towards tornus and with a fine pale line at base. Hind wing whitish, the veins and terminal area suffused with reddish brown; traces of pale medial and postmedial lines defined by minute black streaks on the veins and striæ at inner margin; a pale line from vein 3 to tornus; the termen with minute white points at the veins; cilia rufous with a whitish line at base; the underside yellowish white irrorated with black except on inner area, a black discoidal bar, curved medial line, double minutely waved postmedial line, and rather diffused waved subterminal line.

Hab. Madras, Cuddapah (*Campbell*), 1 ♀; Ceylon, Dickoya (*Green*), 1 ♂, Gampola (*Mackwood*), 1 ♀ type. *Exp.* 30–32 millim.

6249. Eutelia favillatrix.

Eutelia favillatrix, Wlk. xv. 1778 (1858); Hmpsn. Ill. Het. B. M. ix. p. 102, pl. 163. f. 15.

Head and thorax red-brown mixed with some white and black scales; tegulæ fiery red at tips; prothorax fulvous yellow; pectus and legs mostly white; abdomen red-brown mixed with whitish and some black, subdorsal tufts of blue-black scales at base and a dorsal whitish patch, the 4th segment with pure white quadrate dorsal spot. Fore wing brownish grey mixed with brown and

Fig. 18.—*Eutelia favillatrix*, ♂. ½.

white; subbasal line represented by a white striga from costa defined on outer side by black scales; two indistinctly double antemedial lines filled in with white, oblique and slightly waved from costa to below the cell, then inwardly oblique; a fan of rufous scales at middle of upper part of cell and of crimson scales at upper angle; medial line indistinctly double, oblique from costa to upper angle of cell, then excurved and sinuous beyond the cell to vein 4, then oblique; postmedial line double filled in with whitish, oblique and somewhat dentate to vein 6, incurved at discal fold, incurved and sinuous below vein 4, another whitish line beyond it, oblique to vein 6, then somewhat inwardly oblique and slightly sinuous,

interrupted at discal and submedian folds; apical area pale grey-brown with some white points on costa and slight white streak below it; subterminal line whitish, arising at vein 7, waved to vein 3, then slightly sinuous and ending at tornus; terminal area blue-black irrorated with white except at apex; a black terminal line; cilia with fine white lines at base and middle. Hind wing whitish, the veins and terminal area fuscous brown; traces of a whitish postmedial line; a white line from vein 3 to tornus, and fine blackish terminal line; cilia white with a red-brown line through them; the underside creamy white slightly irrorated with blackish, the terminal area suffused with red-brown, a black discoidal spot, curved punctiform medial line, double sinuous postmedial line filled in with white, and diffused sinuous subterminal line.

Hab. Punjab, Simla (*Pilcher*), 1 ♂, Dharmsála (*Hocking*), 2 ♀; Sikhim (*Möller*), 1 ♀; Bombay, 2 ♀; Madras, Belgaum (*Watson*), 1 ♂, Nilgiris (*Hampson*), 1 ♂; Travancore, Trivandrum (*Fergusson*), 1 ♂, 1 ♀; Ceylon (*Templeton*), 1 ♀ type. *Exp.* 22–30 millim.

b. (*Eutelia*). Fore wing without fans of scales at middle and end of cell.
  a^1. Abdomen with dorsal white spot on 4th segment.
    a^2. Tegulæ rufous.
      a^3. Fore wing with silvery blue spot on inner margin at postmedial line.
        a^4. Fore wing suffused with red-brown ..... *adulatrix*.
        b^4. Fore wing suffused with grey-brown ..... *blandiatrix*.
      b^3. Fore wing without silvery blue spot on inner margin at postmedial line ..... *amatrix*.
    b^2. Tegulæ not rufous ..... *mesogona*.
  b^1. Abdomen without dorsal white spot on 4th segment.
    a^2. Fore wing with oblique dark shade from costa at postmedial line to termen at vein 3.
      a^3. Fore wing with minute white spot beyond postmedial line below vein 6 ..... *symphonica*.
      b^3. Fore wing without white spot beyond postmedial line below vein 6 ..... *diapera*.
    b^2. Fore wing without oblique dark shade from costa at postmedial line to termen at vein 3.
      a^3. Fore wing with the costal area not ochreous.
        a^4. Fore wing with the subterminal line not defined by a dentate black mark at discal fold.
          a^5. Hind wing wholly fuscous brown ..... *quadrilituratа*.
          b^5. Hind wing with the basal area whitish.
            a^6. Fore wing with the postmedial line not excurved below submedian fold.
              a^7. Fore wing with the antemedial line evenly curved..... *adoratrix*.
              b^7. Fore wing with the antemedial line strongly excurved at middle..... *discistriga*.
            b^6. Fore wing with the postmedial line excurved below submedian fold ..... *ochreiplaga*.
        b^4. Fore wing with the subterminal line defined by a dentate black mark at discal fold.
          a^5. Fore wing with the reniform filled in with reddish yellow ..... *flaviluna*.
          b^5. Fore wing with the reniform filled in with whitish ..... *solitaria*.

c^5. Fore wing with the reniform filled in with red-brown.
a^6. Fore wing with antemedial line angled outwards below costa, then oblique ..... *nigridentula*.
b^6. Fore wing with the antemedial line excurved from costa to median nervure, then incurved ..... *morosa*.
b^3. Fore wing with the costal area ochreous ..... *ochricostata*.

6250. Eutelia adulatrix.

Noctua adulatrix, Hübn. Eur. Schmett., Noct. ff. 517, 649, 650 (1808); Dup. Lép. Fr. vi. p. 352, pl. 94. f. 6 & vii. pl. 120. ff. 3, 4; Frr. Neue Beitr. pl. 195; Mill. Icones. ii. p. 260, pl. 78. ff. 7–11; Staud. Cat. Lep. pal. p. 218.

Head, thorax, and abdomen rufous mixed with white; palpi with black ring near base of third joint; tegulæ with black line near base and white line near tips; pectus white; tibiæ and tarsi ringed with white; abdomen with slight dark subdorsal marks and lateral spots on basal segments, the 4th and 5th segments with slight black subdorsal bars and lateral white spots. Fore wing rufous mixed with ochreous white; subbasal line slight, double, white, interrupted in cell and ending at vein 1, some whitish marks beyond it; two fine white antemedial lines, the inner line evenly curved, the outer excurved in submedian interspace, a broad curved band beyond it; reniform white, ill-defined, with some brown in upper and lower parts, some white above it on costa; medial line brown, arising from

Fig. 19.—*Eutelia adulatrix*, ♂. ½.

vein 6 beyond the cell, oblique, waved; postmedial line quadruple, the inner line with some crimson on it below costa and at middle and a silvery blue patch at inner margin, oblique from just below costa to vein 6, incurved at discal fold, incurved and waved below vein 4, some white points beyond it on costa and an ochreous white band from vein 4 to inner margin; an ochreous white apical patch and oblique striga between discal fold and vein 4; a series of black striæ defined on inner side by white between veins 7 and 2 just before termen and some blackish at middle of termen; cilia rufous with a fine white line at base, intersected with blackish at the veins and with blackish patch at middle. Hind wing white, the terminal area reddish brown tinged with fuscous; two blackish striæ on inner margin before tornus followed by some black at tornus; an oblique white bar from vein 3 to tornus and series of blackish striæ slightly defined on inner side by white just before termen; cilia

white with a rufous line through them; the underside white, a double black discoidal lunule, medial line, and double postmedial line excurved to discal fold, then oblique, the latter with rather diffused waved subterminal line just beyond it.

Hab. S. France, Frey Coll.; Germany, Zeller and Leech Colls.; Austria; Hungary, Leech and Frey Colls.; Switzerland, Vallais, Frey Coll.; Spain; Italy; Algeria, Hamman-es-Salahin (*Walsingham*), 1 ♀; Canaries, Teneriffe; Greece; Russia, Crimea; Rhodesia, Bulawayo, 1 ♀; Orange R. Colony, Bloemfontein (*Eckersley*, *Wilson*), 2 ♂, 1 ♀; Basutoland, Maseru (*Crawshay*), 1 ♀; Armenia; Asia Minor, Bithynia, Pontus, Taurus; Syria; W. Turkestan, Fergana. *Exp.* 28–36 millim.

Larva. Kirby, Butt. & Moths Eur. p. 260; Hffm. Raup. p. 130, pl. 34. f. 15.

Yellow-green, blue-green or pink with dark dorsal line, yellow subdorsal line and yellow or crimson lateral stripe. Food-plants: *Rhus cotinus*, *Pistacia*; a succession of broods throughout the year.

6251. Eutelia blandiatrix. (Plate CLXXV. fig. 8.)

Eurhipia blandiatrix, Boisd. Ind. Meth. p. 122 (1840).
Eutelia inextricata, Moore, Lep. Atk. p. 147 (1882); Hmpsn. Moths Ind. ii. p. 395.

Head and tegulæ pale rufous, the latter tipped with white and with some black scales at base; palpi with some black scales at base; thorax rufous mixed with whitish and some black-tipped scales, a white line across prothorax; pectus white; legs banded brown and white, the spurs white with black ring near tips; abdomen grey with patches of fiery red and blackish scales at base of dorsum followed by a white mark and fiery red crests on terminal segments, lateral brown patches on basal segments and white points on 5th and 6th segments, and sublateral patches of black, brown, and fiery red scales. Fore wing brown variegated with grey, the inner margin pale yellow on terminal half, the veins slightly streaked with white; subbasal line represented by a white striga from costa and double striga from cell, a rufous spot defined by white beyond it below the costa; antemedial line represented by a diffused white band from costa and treble line from cell followed by another curved line; orbicular represented by a white spot; reniform grey with white patch at middle and defined by white lines at sides, somewhat produced at upper extremity and angled inwards on median nervure; medial line brown, arising from vein 6 beyond the cell, excurved to vein 4, then oblique, sinuous; postmedial line treble, the inner line defined by crimson on inner side between veins 7, 6 and 4, 2 and with metallic blue spot at inner margin, the outer line defined by white on outer side from costa to vein 4, oblique from costa to vein 6, slightly incurved at discal fold, incurved and sinuous below vein 4, some white points beyond it on costa; subterminal line represented by an incurved white line from costa to termen below vein 6 and oblique bar between discal fold and vein 4, the apical area and the subterminal area from vein 3

to tornus yellowish white; a series of black striæ defined on inner side by white just before termen and a blackish patch suffused with silvery blue at middle of termen; cilia chequered brown and yellowish white and with dark patch at middle. Hind wing white, the veins and terminal area brown; a white striga defined on each side by black on inner margin towards tornus and an oblique white bar from vein 3 to tornus; a series of black striæ defined on inner side by white just before termen; cilia white at base, rufous at tips; the underside white, a black discoidal lunule with white centre, a curved minutely waved medial line, double minutely waved postmedial line with some crimson on its inner side between veins 6 and 2 and the sinuous subterminal line just beyond it.

Hab. Japan, Yokohama (*Pryer*), 1 ♀; N. China, 1 ♂; W. China, Ta-chien-lu, 1 ♂; Punjab, Kulu, Sultanpur (*G. Young*), 2 ♂, Simla (*Harford*, *Pilcher*), 1 ♂, 2 ♀, Dharmsála (*Hocking*), 2 ♂, 3 ♀; Sikhim (*Dudgeon*, *Möller*), 5 ♂, 3 ♀; Ceylon (*Green*), 1 ♀. *Exp.* 32–38 millim.

6252. Eutelia amatrix.

Eutelia amatrix, Wlk. xv. 1778 (1858).
Eurhipia bowkeri, Feld. Reis. Nov. pl. 110. f. 29 (1874).
Eutelia exquisita, Saalm. Lep. Madag. p. 379, f. 175 (1891).

Head, thorax, and abdomen black-brown mixed with white; palpi white with black rings; frons with rufous spots at sides; basal joint of antennæ with the tuft of scales white; tegulæ rufous with black semicircles near base and some white scales at tips; a white line across thorax; pectus white; tibiæ and tarsi banded black and white; abdomen with dorsal white marks on four basal segments, sometimes forming a diffused patch, and lateral spots on the terminal segments, the ventral surface white. Fore wing pale olive-grey suffused in parts with red-brown except on terminal area; subbasal line black defined on outer side by white, minutely waved, from costa to vein 1; antemedial line white defined on each side by black, strongly excurved from below costa to vein 1, a broad white band beyond it from cell to inner margin; reniform white, undefined, with brown spots in upper and lower parts; some black striæ from middle of costa; medial line fine, blackish, excurved from outer edge of reniform to vein 4, then oblique, waved; two double black postmedial lines filled in with white and with two fine blackish lines between them, excurved from costa to vein 4, then oblique, sinuous, the outer line dentate below costa, with two white points beyond it on costa; subterminal line white, incurved from costa to vein 6, then waved, the area beyond it pale olive-grey with some blackish at middle and tornus; a series of black points just before termen and a fine terminal line; cilia grey with white line at base and series of black spots and patch at middle. Hind wing with the basal half white, the terminal half fuscous; a slight waved postmedial line; three black striæ on inner margin before tornus with white between them; a white bar from vein 3 to tornus and

a crenulate black terminal line with some white before it except towards apex; cilia white; the underside white with black irroration on the veins, the costal area tinged with rufous, a double black discoidal lunule, sinuous medial line, double curved postmedial line with the rather diffused waved subterminal line just beyond it.

Hab. Sokotra, Adho Dimellus (*O.-Grant*), 1 ♂, 1 ♀; Br. E. Africa, Eb Urru (*Betton*), 1 ♂, Kilima'njaro (*Jackson*), 1 ♀; Natal, Pt. Shepstone (*Aspinall*), 1 ♀, Durban (*Bowker, Gooch, Leigh*), 4 ♂, 1 ♀; Madagascar. *Exp.* 34–38 millim.

6253. Eutelia mesogona. (Plate CLXXV. fig. 9.)

Eutelia mesogona, Hmpsn. A. M. N. H. (7) xvi. p. 376 (1905).

♀. Head and thorax ochreous mixed with reddish brown; palpi with the 2nd joint brown at sides, the 3rd ochreous, long and dilated at extremity; tegulæ with dark upper edge; patagia black at extremity; pectus whitish; legs whitish, brown and black; abdomen whitish tinged with brown and with small brown subdorsal spots. Fore wing reddish brown tinged with greenish fuscous; subbasal line represented by a slight striga from costa; antemedial line indistinctly double, slightly waved, oblique from costa to median nervure, then incurved and with the inner line strong, black; a medial ochreous band, its outer edge defined by the double postmedial line oblique from costa to vein 6 where it is acutely angled, inwardly oblique below the cell; orbicular represented by a small ochreous spot on the dark area, the reniform slightly defined by brown and rather triangular, on the ochreous area; traces of a waved medial line; a somewhat trilobate whitish mark between veins 4 and 2 with some ochreous below it, before the subterminal line, which is whitish and very oblique from costa to vein 6, then ochreous, waved, excurved to vein 3; some white points on costa towards apex and a whitish apical patch; a terminal series of small black lunules with ochreous striæ beyond them. Hind wing brown, the basal and inner areas paler; some black and whitish striæ in submedian fold and on inner margin towards tornus; a whitish waved line from vein 3 to termen near tornus; small black lunules defined by whitish on termen from apex to submedian fold; the underside with the costal half reddish brown, the inner half whitish, a small black discoidal spot, curved medial line, and three slight minutely waved lines on terminal area.

Hab. Madagascar, Betsileo (*Cowan*), 1 ♀ type. *Exp.* 36 millim.

6254. Eutelia symphonica. (Plate CLXXV. fig. 10.)

Eutelia symphonica, Hmpsn. Ann. S. Afr. Mus. ii. p. 309 (1902).

Head, thorax, and abdomen red-brown mixed with some fuscous and grey; tegulæ with blackish line near base; tarsi ringed with white. Fore wing red-brown more or less suffused with grey and

fuscous; subbasal line double, minutely waved, from costa to vein 1, a faint line beyond it before the two double minutely waved antemedial lines; reniform a grey or white patch with brown lunule in centre; medial line slight, arising at vein 6 well beyond the cell, oblique, sinuous; two double minutely waved postmedial lines, often filled in with white especially towards costa, oblique from costa to vein 6, incurved at discal fold and oblique below vein 4, a small quadrate white spot defined by black beyond it at discal fold and some pale points on costa; subterminal line whitish slightly defined on each side by black, oblique to vein 7 where it is slightly angled outwards, then waved, some white suffusion beyond it at apex and some black above vein 6; a waved black line just before termen and fine white line at base of cilia. Hind wing fuscous brown, the interspaces of basal half whitish; a whitish striga defined by black at inner margin towards tornus and traces of a subterminal line from vein 3 to tornus; a waved black line just before termen and fine white line at base of cilia; the underside white tinged with rufous except on inner area and irrorated with black, two black discoidal striæ, traces of a waved medial line and double postmedial and subterminal lines, a series of black points before termen.

Hab. Gold Coast, Kumasi (*Whiteside*), 1 ♂; Congo Forest (*Wollaston*), 1 ♂, 1 ♀; Br. E. Africa, Tanga (*Hollis*), 1 ♀; N.E. Rhodesia, Serenje Distr. (*Neave*), 1 ♀; Mashonaland (*Dobbie*), 1 ♂, 3 ♀; Natal, Durban (*Gooch*), 2 ♀. *Exp.* 26–32 millim.

6255. Eutelia diapera. (Plate CLXXV. fig. 11.)

Eutelia diapera, Hmpsn. J. Bomb. Nat. Hist. Soc. xiv. p. 210 (1902).

♀. Head and thorax black-brown mixed with some greyish; tegulæ with some whitish scales at tips; metathorax with whitish patch; pectus whitish; tarsi ringed with white; abdomen brownish grey, the 1st three segments dorsally red-brown, the 3rd segment fringed with white scales, the 4th and 5th segments dorsally black-brown, the 6th with black dorsal crest, subventral black points on medial segments. Fore wing grey tinged with purplish brown; a dark brown patch at base of costal area; antemedial line indistinctly double, blackish, erect; orbicular and reniform white defined by greyish fuscous, the former small, round, the latter elliptical and with pale brownish centre; a medial brown striga from costa and line from cell to inner margin; postmedial line double, brown, oblique from costa to discal fold, then incurved, again incurved below vein 3 and slightly angled outwards at vein 1, a very oblique brown bar beyond it from discal fold to vein 3 at subterminal line, which is white, obliquely excurved and slightly dentate from costa to vein 3, then incurved, small dark marks beyond it below costa and at discal fold before another slightly waved white line from costa to discal fold; a fine waved dark terminal line; cilia grey with punctiform white line at base, and waved white line near tips. Hind wing dark reddish brown, the

basal inner area whitish; cilia white with a brown line through them; the underside grey irrorated with brown, a brown discoidal spot, slight medial line excurved beyond the cell, crenulate postmedial and subterminal lines defined on outer side by white, and terminal series of slight black lunules.

Hab. Bhután (*Dudgeon*), 2 ♀ type. *Exp.* 26 millim.

6256. Eutelia quadriliturata. (Plate CLXXV. fig. 12.)

Eutelia quadriliturata, Wlk. Proc. N. H. Soc. Glasg. i. p. 352 (1873).

Head and thorax fuscous brown mixed with reddish and a few white scales especially on head; pectus white; tibiæ at extremities, the spurs and tarsi banded black and white; abdomen grey-brown with slight dark segmental lines and the crests black, the ventral surface pale rufous with slight black subventral points. Fore wing red-brown mixed with fuscous and grey; antemedial and medial white striæ from costa; a slight white discoidal lunule; medial line indistinct, black, arising at vein 6 just beyond the cell, oblique below vein 4, and with white band beyond it from above vein 1 to inner margin; postmedial line indistinct, double, black filled in with some white scales especially towards costa and inner margin, oblique from costa to vein 6, then inwardly oblique and slightly waved, some white points beyond it on costa; subterminal line white, excurved at vein 7, then waved and with some pale brownish before it defined on inner side by an oblique black line; a terminal series of slight black lunules; cilia chequered white and fuscous. Hind wing fuscous brown; a subterminal white point on vein 2 and two striæ at inner margin; cilia rufous with a fine white line at base; the underside whitish suffused with red-brown except on basal and inner areas and irrorated with fuscous, a black discoidal spot, curved medial line, double waved postmedial line, and terminal series of points.

Hab. S. Nigeria, Old Calabar (*Cockburn, Sampson, Crompton*), 1 ♂, 6 ♀; Congo (*Marsden*), 1 ♀ type. *Exp.* 26–30 millim.

6257. Eutelia adoratrix. (Plate CLXXV. fig. 13.)

Eurhipia adoratrix, Staud. Iris, iv. p. 308 (1891); Melioransky, Hor. Ent. Soc. Ross. xxxi. p. 234, pl. 7. f. 7; Staud. Cat. Lep. pal. p. 218.

Head brown mixed with grey; tegulæ rufous, black at base; prothorax rufous with a white line behind, the rest of thorax fuscous pectus and legs brown and grey, the tarsi fuscous ringed with white; abdomen grey and brown, the crests white at base, rufous at tips. Fore wing grey suffused with red-brown, a subbasal black striga from costa; antemedial line treble, the outer line black and distinct, excurved and slightly waved; a whitish streak in terminal part of cell ending in two striæ representing the edges of reniform with a dark point between their upper parts; traces of

a dark medial line arising at vein 6 well beyond the cell, excurved to vein 4, then oblique; postmedial line treble, the inner line black and slightly defined on outer side by white scales, sinuous, oblique from costa to vein 6 and incurved below vein 4, two white points beyond it on costa and an oblique striga between discal fold and vein 4; subterminal line white, incurved from costa to vein 6 and below vein 3; the apical area suffused with white; a terminal series of small black spots slightly defined by white; cilia chequered brown and white. Hind wing with the basal half white, the terminal half fuscous brown; a white striga at inner margin towards tornus and sinuous line from vein 3 to tornus; a lunulate blackish terminal line; cilia white with a brown line through them and chequered with brown at tips; the underside white tinged with brown except on inner area and slightly irrorated with black, the discal area tinged with red, an elliptical black discoidal spot and diffused rufous postmedial band formed of three lines.

Hab. Russia, Crimea; Asia Minor, Pontus, Amanus Mts., 1 ♀; Syria; Palestine, 1 ♂, 1 ♀. *Exp.* 34 millim.

6258. **Eutelia discistriga.** (Plate CLXXV. fig. 14.)

Eutelia discistriga, Wlk, xxxiii. 823 (1865); Hmpsn. Moths Ind. ii. p. 396.
Penicillaria petrificata, Wlk. Entom. v. p. 131 (1870).

Head, thorax, and abdomen grey mixed with reddish brown and some black; tegulæ rufous with black line at base; prothorax with white line; tarsi ringed with white; abdomen with dorsal red-brown bands on basal segments and lateral blackish spots, the ventral surface whitish. Fore wing grey mixed with reddish brown and slightly irrorated with black; subbasal line slight, double, whitish, from costa to vein 1; two indistinct, double, slightly waved antemedial lines; a whitish streak in cell to the reniform, which is whitish and undefined below, grey defined by black above; medial line blackish, arising at discal fold, oblique and slightly sinuous; two double postmedial lines, the inner line filled in with white and defined by black on inner side, the outer line indistinct, oblique from costa to vein 6, incurved at discal fold, and below vein 4, some white points beyond it on costa; subterminal line white, incurved from costa to vein 6, angled inwards at discal fold, excurved and waved at middle and ending at tornus; the apical area greyish; a series of black and white striæ just before termen; cilia intersected with brown and with fine white lines at base and middle. Hind wing whitish, the veins and terminal area fuscous brown; some black and white striæ at inner margin towards tornus and a white line from vein 3 to tornus; some faint whitish striæ just before termen; cilia with fine white lines at base and middle; the underside grey-white irrorated with brown, a slight double discoidal lunule, punctiform medial line, double waved postmedial line, and diffused waved subterminal line.

Hab. S. Nigeria, Olokemeji (*Dudgeon*), 1 ♂, 1 ♀, Ilesha

(*Humphrey*), 1 ♂ ; Abyssinia, Daladu (*Drake-Brockman*), 1 ♂ ; Br. E. Africa, Taru (*Betton*), 1 ♀, Takaunga (*Thomas*), 1 ♀, Machakos (*Crawshay*), 1 ♂, 1 ♀, Neugia (*Crawshay*), 1 ♂, 1 ♀, Athi-ya-Mawe (*Betton*), 1 ♀ ; Uganda, Entebbe (*Minchin*), 1 ♀ ; Rhodesia, Bulawayo (*Marshall*), 3 ♂, 3 ♀ ; Natal, Durban (*Leigh*), 1 ♀ ; Mauritius (*Manders*), 2 ♀ ; Seychelles (*B. Fletcher*), 1 ♀ ; Perim (*Meade-Waldo*), 1 ♀ ; Aden (*Yerbury, Mathew*), 1 ♂, 4 ♀, Shaik-Othman (*Yerbury*), 1 ♀ ; Sind, Karáchi (*Swinhoe*), 1 ♂, Kutch, 1 ♂ ; Bombay, 1 ♂ ; Madras, Coimbatore (*Walhouse*), 1 ♀ type ; Ceylon, Colombo (*J. J. Walker*), 1 ♂. *Exp.* 30–34 millim.

*6259. Eutelia ochreiplaga. (Plate CLXXV. fig. 15.)

Eutelia ochreiplaga, Beth.-Baker, Nov. Zool. xiii. p. 231 (1906).

♀. Head and thorax pale ochreous mixed with brown ; palpi mostly yellow, the 1st joint dark brown ; frons dark brown ; fore coxæ blackish brown, the fore tibiæ and tarsi dark brown ringed with ochreous ; abdomen ochreous mixed with dark brown, the crests blackish brown. Fore wing pale yellow irrorated and in parts suffused with red-brown, the inner and terminal areas suffused with red-brown leaving the apex whitish ; subbasal line represented by a curved dark striga from costa ; antemedial line dark, curved, with blackish bar before it from costa to median nervure ; orbicular and reniform represented by undefined pale yellowish patches ; medial line dark, diffused, angled outwards below costa, then inwardly oblique ; postmedial line double, the inner line blackish, the outer diffused, red-brown, slightly bent outwards below costa, excurved to vein 4, then incurved and again slightly excurved below submedian fold, some pale striæ beyond it from costa ; subterminal line defined on inner side by slight brown marks from discal fold to inner margin, on costal area obscured by the large apical patch ; a terminal series of black striæ. Hind wing yellowish white tinged with brown, the costal and terminal areas broadly suffused with brown ; a brown discoidal spot, slight curved postmedial line with traces of another line beyond it at median nervules, and some dark points on terminal half of vein 1 ; the underside pale yellowish irrorated with brown, a large blackish discoidal spot, two slightly waved curved postmedial lines, and a somewhat maculate subterminal line.

Hab. Br. New Guinea, Aroa R. (*Meek*), type † ♀ in Coll. Rothschild. *Exp.* 26 millim.

6260. Eutelia flaviluna. (Plate CLXXV. fig. 16.)

Eutelia flaviluna, Hmpsn. A. M. N. H. (7) xvi. p. 377 (1905).

♂. Head, thorax, and abdomen grey tinged with brown and irrorated with black ; pectus and legs blackish, the tarsi ringed

with white. Fore wing reddish brown suffused with grey and irrorated with black; antemedial line double, the outer line strong, black, oblique from costa to subcostal nervure where it is angled, then slightly incurved; orbicular represented by a black streak, the reniform a prominent ochreous lunule defined by black; medial line rather indistinct, oblique from costa to median nervure, then incurved; postmedial line double, sinuous, oblique from costa to vein 6, then inwardly oblique; subterminal line indistinct, ochreous defined by somewhat dentate blackish marks on inner side, waved, angled inwards in discal fold and outwards on vein 3; a fine waved black terminal line. Hind wing fuscous, the inner area slightly paler; an ill-defined ochreous line from vein 5 to tornus; the underside whitish suffused with brown and irrorated with fuscous, a small black discoidal spot defined by whitish, a curved medial line and diffused subterminal band outwardly defined by whitish on inner half.

Hab. Singapore (*Ridley*), 1 ♂ type. *Exp.* 30 millim.

*6261. Eutelia solitaria. (Plate CLXXV. fig. 17.)

Penicillaria solitaria, Holl. Psyche, vii. p. 32, pl. 1. f. 23 (1894).

♀. Head and thorax whitish tinged with rufous; antennæ brown; palpi above and legs red-brown; abdomen grey-brown, dorsally bright rufous at base. Fore wing grey suffused in parts with rufous and slightly irrorated with fuscous; traces of a double sinuous antemedial line; orbicular a small triangular black spot with oblique diffused chocolate-brown band from it to inner margin; reniform whitish defined by black, narrow and constricted at middle, a slight sinuous line from it to inner margin; postmedial line indistinct, double, brown filled in with whitish, oblique from costa to vein 6, then inwardly oblique and dentate; subterminal line whitish, defined on inner side by a chocolate-brown patch at costa and dentate mark at discal fold, slightly angled inwards at discal fold, incurved below vein 4 and ending at tornus; a slight dark terminal line and whitish line at base of cilia. Hind wing grey-brown, the inner area whitish, the terminal area tinged with red; a faint, slightly waved dark subterminal line; the underside suffused with red except on inner area, a black discoidal spot defined by white and traces of minutely waved dark postmedial and subterminal lines.

Hab. Gaboon, Ogowe R., type† ♀ in Coll. Holland. *Exp.* 26 millim.

6262. Eutelia nigridentula. (Plate CLXXV. fig. 18.)

Eutelia nigridentula, Hmpsn. A. M. N. H. (7) xvi. p. 381 (1905).

Head, thorax, and abdomen red-brown; palpi whitish, black at base and on outer side of 3rd joint; tarsi fuscous ringed with white;

abdomen with dorsal and subdorsal series of slight points, the ventral surface whitish with paired series of black points. Fore wing pale or dark reddish brown slightly irrorated with fuscous; a whitish striga in cell before the double antemedial line filled in with rufous and defined by whitish on inner side, angled outwards below costa, then oblique; orbicular a small black spot; a slight medial line excurved below costa and oblique below the cell; reniform elliptical, chocolate with ochreous annulus defined by black; postmedial line double filled in with ochreous, oblique from costa to vein 6 where it is angled, angled inwards in discal fold and outwards at vein 4, then oblique, waved; a chocolate patch on costa before apex defined on outer side by a whitish lunule, below which is a black dentate mark followed by traces of a series of points; the terminal area rather darker with a series of small black lunules on termen. Hind wing fuscous brown with fine waved terminal dark line; the underside greyish suffused with rufous and irrorated with fuscous, a small black discoidal lunule, indistinct minutely waved medial and double postmedial lines.

Hab. Sierra Leone (*Clements*), 1 ♀ type; S. Nigeria (*Dudgeon*), 1 ♂, Old Calabar (*Crompton*), 1 ♀, Sapele (*Sampson*), 2 ♀. *Exp.* 22 millim.

*6263. Eutelia morosa. (Plate CLXXV. fig. 19.)

Penicillaria morosa, Holl. Psyche, vii. p. 32, pl. 1. f. 22 (1894).

♂. Head and thorax red-brown with a greyish tinge; palpi at base and base of tegulæ blackish, the latter with some blackish scales near tips; tarsi black-brown ringed with white; abdomen reddish brown tinged with grey, dorsal and subdorsal series of small blackish spots and subventral series of small white spots. Fore wing reddish brown tinged with grey and irrorated with black; subbasal line indistinct, double, blackish, minutely waved, from costa to vein 1; antemedial line double, the outer line strong, black, excurved from costa to submedian fold, then incurved; reniform red-brown with paler annulus slightly defined by black; medial line blackish, oblique from costa to reniform, inwardly oblique and sinuous from lower angle of cell to inner margin; postmedial line double, black, oblique from costa to vein 6, incurved at discal fold, oblique below vein 4 and angled inwards at submedian fold; subterminal line slight, pale, strongly defined on inner side by black-brown from costa to vein 4, angled inwards at discal fold, then minutely waved; a terminal series of slight black lunules. Hind wing dark reddish brown with a paler patch on termen at submedian fold with dark mark before it; a terminal series of blackish striæ; cilia rufous; the underside rufous irrorated with brown, the inner area whitish, a blackish discoidal spot and minutely waved medial, postmedial, and subterminal lines.

Hab. Gaboon, Ogowe R., type † ♂ in Coll. Holland. *Exp.* 30 millim.

6264. Eutelia ochricostata. (Plate CLXXV. fig. 20.)

Eutelia ochricostata, Hmpsn. A. M. N. H. (7) xvi. p. 383 (1905).

♀. Head and fore half of thorax rufous, tips of patagia and hinder part of thorax ochreous white, metathoracic crest rufous; palpi blackish at base; abdomen brown tinged with grey and rufous, the dorsal crests dark, subdorsal series of slight dark segmental striæ. Fore wing red-brown, the basal area and costal area to near apex ochreous tinged with rufous; two oblique black antemedial lines from middle of cell to inner margin, towards which they separate more widely; a slight oblique medial line from cell to inner margin; reniform a V-shaped ochreous white mark filled in with rufous; postmedial line indistinct, double, minutely waved, almost obsolete on costal area, bent outwards below costa, excurved to vein 4, then incurved; subterminal line ochreous, distinct from costa to vein 6 where it is joined by an oblique ochreous streak from beyond postmedial line, then represented by slight ochreous and rufous striæ incurved below vein 3; apical area fuscous grey with black streaks above veins 6, 7; a terminal series of small dark lunules; cilia with some ochreous above and below vein 5. Hind wing brown with some pale and dark striæ on vein 2 and inner margin towards tornus; a pale subterminal line towards tornus; a terminal series of dark lunules; the underside suffused with rufous and irrorated with brown, a dark discoidal lunule, minutely waved medial and double postmedial line.

Hab. S. Nigeria, Old Calabar (*Crompton*), 1 ♀ type. *Exp.* 24 millim.

B. Fore wing with the termen almost straight to vein 3, then excised and sinuous.

a. Abdomen with a dorsal crest on 4th segment lying in a hollow between ridges of hair, and curved subdorsal pencils of hair on 5th segment extending round a dorsal opening between 5th and 6th segments.

6265. Eutelia cautabasis.

Eutelia cautabasis, Hmpsn. A. M. N. H. (7) xvi. p. 378 (1905).

♂. Head and thorax ferruginous red; patagia with deeper red patches at shoulders; palpi blackish at base; tarsi fuscous ringed

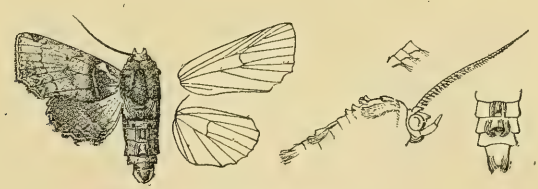


Fig. 20.—*Eutelia cautabasis*, ♂. $\frac{1}{1}$.

with white; abdomen pale rufous with some deeper red on dorsum and some greyish hair at base, the ventral surface deep rufous.

Fore wing with the basal area yellowish with small deep rufous patch below base of costa and large patch from subcostal nervure to inner margin, bounded by a red-brown band expanding into a triangular patch on costa; the rest of wing greenish grey with a slight rufous tinge; an indistinct waved rufous medial line excurved from costa to vein 2; postmedial line faint with dark points on the veins, bent outwards below costa, then slightly curved; a small triangular red-brown patch on costa before apex; some brown suffusion before termen between veins 4, 3; a terminal series of points. Hind wing reddish brown, the basal and inner areas yellowish white; an obliquely curved whitish medial line; some slight dark marks on extremity of vein 2 and at tornus; a fine waved terminal line; cilia rufous; the underside rufous slightly irrorated with brown, the inner area whitish, a small discoidal lunule and faint minutely waved medial and postmedial lines.

Hab. Old Calabar (*Crompton*), 1 ♂ type. *Exp.* 38 millim.

b. Abdomen with the crests normal and minute.
*a*¹. (*Targallodes*). Hind tarsi of male with the 1st joint much dilated.

6266. Eutelia subrubens.

Penicillaria subrubens, Mab. Ann. Soc. Ent. Fr. 1890, p. 40.
Penicillaria oculatris, Saalm. Lep. Madag. p. 388, f. 202 (1891).
Penicillaria pyrospila, Mab. Ann. Soc. Ent. Belg. xxxvii. p. 60 (1893).
Targallodes rufula, Holl. Psyche, vii. p. 31 (1894).

Head, thorax, and abdomen pale rufous to deep fiery red; palpi white in front; basal joint of antennæ white; metathoracic crest tipped with black; pectus white; legs banded with white, the

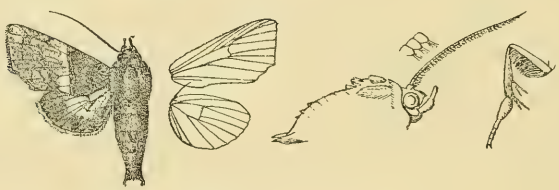


Fig. 21.—*Eutelia subrubens*, ♂. ½.

spurs white ringed with black; abdomen with the crests black, the paired anal tufts of male blackish, the ventral surface white tinged with rufous. Fore wing pale rufous tinged with grey to deep fiery red with a greyish tinge on costal area towards apex; subbasal line represented by a slight blackish striga from costa and black point below cell; antemedial line black and grey, angled outwards below costa where there is some black and grey beyond it, then oblique, straight; two black discoidal points; traces of a medial dark line arising at vein 6, excurved to vein 4, then oblique and waved below

submedian fold, where there is often a yellowish patch before it beyond the antemedial line; postmedial line indistinctly double filled in with grey, oblique to vein 6, then with black points on the veins, oblique below vein 4, more distinct and waved below submedian fold, a similar indistinct line beyond it and some white points on costa; an indistinct waved subterminal line with slight yellowish annulus before it below vein 7 and whitish annulus below vein 6, the former sometimes obsolete and the latter reduced to a small V-shaped mark; some white suffusion at apex and a series of black points just before termen; cilia whitish at tips. Hind wing ochreous whitish, the veins and inner area irrorated with black, the terminal area fiery red from apex to vein 2; traces of medial and postmedial lines on inner area, the latter with black striga defined on each side by white at inner margin; a series of black points just before termen from apex to vein 2 and a whitish striga from vein 2 to termen; cilia with whitish line at base and white tips; the underside white tinged with red except on inner area and irrorated with black, a black discoidal point, curved brown medial line, traces of double postmedial line with minute streaks on the veins and of a waved subterminal line with brown patch at discal fold.

Hab. S. Leone (*Bartlett*), 1 ♂; Gold Coast, Ashanti, Obuassi (*Bergman*), 1 ♂; S. Nigeria, Lagos, Iroko (*Dudgeon*), 1 ♀, Old Calabar (*Cockburn*), 1 ♂, Sapele (*Sampson*), 1 ♂, Olokemeji (*Dudgeon*), 2 ♀; Cape Colony, Transkei (*Miss F. Barrett*), 1 ♂; Madagascar. *Exp.* 34–38 millim.

*b*¹. Hind tarsi of male with the 1st joint normal.

6267. Eutelia vittalba.

Penicillaria vittalba, Semp. Reise Phil., Schmett. ii. p. 534, pl. 60. f. 9 (1900).
Eutelia furcicauda, Hmpsn. A. M. N. H. (7) xvi. p. 378 (1905).

♂. Head, thorax, and abdomen brick-red tinged with grey; palpi in front to near end of 2nd joint, pectus, the greater part of

Fig. 22.—*Eutelia vittalba*, ♂. ½.

legs and ventral surface of abdomen white; the minute dorsal crests black, the lateral anal tufts long. Fore wing brick-red

suffused with grey; conjoined yellowish white spots defined by red and with red centres above and below vein 1 at middle of inner margin; a fuscous medial line angled outwards below costa and ending at the spots on inner margin; minute points at angles of cell; a faint postmedial line, excurved from costa to vein 4, then incurved to near the medial spots; costa red towards apex with some yellow points on it, a slight red streak above vein 7 with two outwardly oblique yellow striæ defined by red from its inner side to vein 5; subterminal line indistinct, red, sinuous, with two obliquely placed yellow points on it below costa and ending above tornus; termen strongly angled at vein 3, then oblique, waved. Hind wing yellowish white, the terminal area brick-red, brownish at tornus; a yellow point at extremity of vein 2; termen slightly crenulate, angled at vein 2, then excised; cilia yellowish and red. Underside of fore wing with the basal parts of costa and inner margin yellowish, the disk fuscous irrorated with grey, the terminal area blue-grey, costa red from middle to near apex, some reddish beyond cell and a deeper red spot beyond postmedial line; hind wing white with some black irroration at base of costa and lower angle of cell, a small red discoidal spot, postmedial line defined by small red spots before and beyond it, terminal area suffused with red, some black points on termen.

Hab. Singapore (*Ridley*), 4 ♂ type *furcicauda*; Philippines, Cebu. *Exp.* 30 millim.

Sect. VI. Antennæ of male ciliated; fore wing with the termen crenulate, oblique below vein 3.

A. Hind wing not wholly fuscous brown.
  a. Fore wing without oblique black fascia from postmedial line at discal fold to termen at vein 3 ..... *polychorda*.
  b. Fore wing with oblique black fascia from postmedial line at discal fold to termen at vein 3 ..... *suffundens*.
B. Hind wing wholly fuscous brown ..... *purpureonigra*.

6268. **Eutelia polychorda.** (Plate CLXXV. fig. 21.)

Eutelia polychorda, Hmpsn. Ann. S. Afr. Mus. ii. p. 308 (1902).

Head, thorax, and abdomen red-brown mixed with grey and some fuscous; abdomen with the small dorsal crests black; pectus and ventral surfaces of abdomen whitish, the latter with double subventral series of black points; tarsi ringed with white. Fore wing red-brown mixed with grey and some fuscous; traces of a double subbasal line from costa to submedian fold; two indistinct double sinuous antemedial lines; two black discoidal points; postmedial line double, minutely waved, slightly excurved from below costa to vein 4, then incurved, another curved maculate dark line well beyond it; subterminal line blackish defined on inner side by red-brown, minutely dentate; a crenulate blackish line just before termen. Hind wing whitish tinged with brown, the veins and

terminal area suffused with brown; cilia whitish with a brown line through them; the underside whitish irrorated with brown, traces of punctiform brown postmedial and subterminal lines, a series of black points just before termen.

Ab. 1. Fore wing with the ante- and postmedial areas suffused with purplish fuscous.

Ab. 2. Fore wing greyer brown, the medial area suffused with purplish fuscous.

Ab. 3. Fore wing grey mixed with red-brown, the veins streaked with blackish.

Ab. 4. Fore wing whitish mixed with ochreous brown.

Ab. 5. Fore wing whitish suffused with pale red.

Ab. 6. Similar, but the fore wing with the subbasal, outer antemedial, and two postmedial lines defined by fuscous.

Ab. 7. Fore wing with the ground-colour purplish red.

Ab. 8. Similar, but the fore wing with the lines defined by fuscous.

Ab. 9. Similar, but the fore wing with the terminal area darker.

Hab. German E. Africa, Usangu (*Neave*), 1 ♀; Br. C. Africa, Karonga Songwe (*Grogan*), 1 ♀; Mashonaland, Salisbury (*Marshall, Dobbie*), 2 ♂, 3 ♀, Umtali (*Marshall*), 2 ♀; Bechuanaland, L. N'Gami (*Lugard*), 1 ♀; Damaraland (*Trimen*), 2 ♀ type; Rhodesia, Bulawayo (*Marshall*), 7 ♂, 5 ♀; Gazaland, Chirinda Forest (*Marshall*), 3 ♂, 1 ♀; Transvaal, Johannesburg (*Cooke*), 1 ♂; Natal, Durban (*Leigh*), 1 ♂. *Exp.* 24–36 millim.

6269. Eutelia suffundens.

Anophia suffundens, Wlk. Journ. Linn. Soc., Zool. vii. p. 172 (1864); Swinh. Cat. Het. Mus. Oxon. ii. p. 86.
Eutelia catephiformis, Hmpsn. J. Bomb. N. H. Soc. xiv. p. 212 (1902).
Targalla ekeikei, Beth.-Baker, Nov. Zool. xiii. p. 227 (1906).

♀. Head, thorax, and abdomen reddish brown mixed with ochreous grey; tarsi fuscous ringed with white; abdomen with dorsal blackish patches near base and extremity. Fore wing

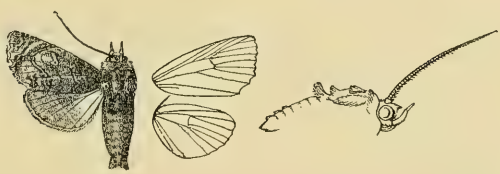


Fig. 23.—*Eutelia suffundens* ♂. ½.

greyish ochreous suffused with red-brown, the basal area to antemedial line and the apical area suffused with fuscous; subbasal line indistinctly double, minutely waved, from costa to vein 1; two

double antemedial lines, the inner very indistinct, the outer slightly incurved below submedian fold; orbicular an ochreous point defined by black; reniform ochreous defined by black, narrow and strongly constricted at middle; medial line represented by double black striæ from costa and a line arising at upper extremity of reniform, excurved to vein 5, then strongly incurved; postmedial line treble, minutely waved, oblique from costa to vein 6 and incurved below vein 4, another indistinct oblique double line beyond it from costa to an oblique black fascia from discal fold at postmedial line to termen below vein 3; some pale points on postmedial part of costa; subterminal line indistinct, pale, dentate, incurved below costa; a terminal series of slight black lunules; cilia intersected with blackish. Hind wing fuscous brown, the basal half of inner area pure white; a subterminal series of minute white streaks on the veins and terminal series of points; a fine white line at base of cilia; the underside white irrorated and suffused with brown except on inner area, a blackish discoidal lunule, curved medial and postmedial lines, double minutely waved subterminal line and terminal series of lunules.

♂. Fore wing with the basal half and inner area suffused with fuscous.

Hab. Assam, Nagás, type *catephiformis* † in Coll. Rothschild; Singapore (*Ridley*), 2 ♂, 5 ♀; Borneo, Sarawak (*Wallace*), 1 ♀; Br. N. Guinea, Ekeikei (*Pratt*), type † *ekekei* in Coll. Bethune-Baker. *Exp.* 32–36 millim. Type † ♂ in Mus. Oxon.

*6270. Eutelia purpureonigra. (Plate CLXXV. fig. 22.)

Eutelia purpureonigra, Beth.-Baker, Nov. Zool. xiii. p. 230 (1906).

♀. Head and thorax deep rufous largely mixed with black scales tipped with white; pectus whitish mixed with brown; tarsi black ringed with white; abdomen black-brown with slight leaden grey dorsal line on 4th segment followed by faint rufous bands, the ventral surface pale red with black segmental lines, the extremity dark red-brown. Fore wing with the basal half black-brown slightly tinged with leaden grey and irrorated with rufous, the terminal half deep rufous irrorated and suffused with dark brown; the costa with alternating black and rufous striæ; subbasal line black, from costa to submedian fold; antemedial line indistinctly double, black, minutely waved, oblique from costa to median nervure, then somewhat incurved; orbicular an indistinct small black annulus partly defined by rufous; reniform rufous with its centre defined by brown, a rather narrow bar; a sinuous black medial line bounding the dark area; postmedial line double, black filled in with rufous, slightly bent outwards below costa, then minutely waved, excurved to vein 4, then slightly incurved; a double waved curved line before the subterminal black line, with some pale points between them on costa and black mark below costa; the subterminal

line irregularly waved, angled inwards in discal fold and incurved below vein 3; a fine black terminal line with minute white points at the veins; cilia rufous intersected with black. Hind wing deep fuscous brown with some reddish and ochreous alternating with black marks on terminal part of vein 2 and inner margin; a fine black terminal line with white points at extremities of the veins and some reddish before it at middle; cilia bright rufous with black spots between veins 5 and 2; the underside bright rufous irrorated with black, the basal inner area white, a black discoidal spot, two curved waved postmedial lines and two sinuous subterminal lines, the inner indistinct.

Hab. Br. N. Guinea, Ekekei (*Pratt*), type † ♀ in Coll. Bethune-Baker. *Exp.* 36 millim.

Genus **CHLUMETIA.**

	Type.
Nachaba, Wlk. xxvii. 113 (1863), nec Wlk. Lep. 1859	*transversa.*
Chlumetia, Wlk. xxxiv. 1270 (1865).....	*transversa.*

Proboscis somewhat small and aborted; palpi obliquely upturned, the 2nd joint reaching to vertex of head and broadly scaled in front and behind towards extremity, the 3rd moderate; frons smooth; eyes large, round; antennæ of male typically with the dorsal half pectinate with very short branches on outer side only, the apical half ciliated; thorax clothed almost entirely with scales and without crests; tibiæ moderately fringed with hair; abdomen with dorsal crests on 2nd, 3rd, and 4th segments, the anal appendages typically consisting of flattened plates, in female very broad, fitting into a channelled plate below. Fore wing triangular, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a minute areole; 11 from cell. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Antennæ of male bipectinate with long branches, the apex ciliated.

A. Fore wing with the outer half of medial area suffused with white.	
a. Hind wing with the basal half white, the terminal area fuscous	*lichenosa.*
b. Hind wing suffused with fuscous to the postmedial line, the termen white.....	*euryptera.*
B. Fore wing with the outer half of medial area not suffused with white.	
a. Fore wing with the postmedial line oblique to vein 6, then inwardly oblique	*duplicilinea.*
b. Fore wing with the postmedial line nearly evenly curved.	
a^1. Fore wing largely suffused with brown.	
a^2. Fore wing with the basal area concolorous with the medial area	*hampsoni.*
b^2. Fore wing with the basal area chocolate-brown and darker than the medial area.....	*alternans.*
b^1. Fore wing nearly uniform pale grey	*cana.*

6271. **Chlumetia lichenosa.** (Plate CLXXV. fig. 23.)

Perciana lichenosa, Hmpsn. Ann. S. Afr. Mus. ii. p. 376 (1902).

♀. Head and thorax olive-brown mixed with black, red-brown, and white; pectus grey-white, the tarsi black ringed with white;

abdomen white irrorated with blackish, the crests and extremity blackish. Fore wing grey suffused with olive fuscous except on medial area; subbasal line indistinct, blackish, waved, from costa to inner margin; antemedial line double, black, excurved; reniform indistinctly defined; medial line arising from upper extremity of reniform, excurved beyond the cell, then oblique, sinuous; postmedial line indistinctly quadruple, excurved from below costa to vein 5, then oblique, sinuous; an oblique black bar from the innermost line below costa to subterminal line at vein 4 and some white points on costa; subterminal line white and minutely waved towards costa, then grey and excurved at middle; a lunulate black terminal line; cilia chequered blackish and grey. Hind wing white, the terminal area broadly suffused with fuscous black; cilia chequered blackish and white; the underside white, the costal area irrorated with brown, the terminal area irrorated and suffused with brown, a black discoidal spot, indistinct medial line excurved beyond the cell, curved crenulate postmedial line, double subterminal line, and fine black terminal line.

Ab. 1. Fore wing with the medial area prominently white except towards costa.

Hab. Angola, Bihé, 1 ♀; Mashonaland, Salisbury (*Marshall*), 1 ♀ type; Transvaal, White R. (*Cooke*), 1 ♀. *Exp.* 28 millim.

6272. **Chlumetia euryptera**, n. sp. (Plate CLXXX. fig. 6.)

♂. Head and thorax creamy white mixed with some rufous; some dark brown scales between antennæ; tegulæ with a dark brown line near base; antennæ with the branches rufous; pectus and legs deep rufous, the tarsi white; abdomen creamy white mixed with red-brown, the crests dark, the ventral surface red-brown with some whitish near base. Fore wing with the costa highly arched towards apex; white tinged with blue-grey and suffused with red-brown especially before the antemedial line except towards costa and inner margin and on postmedial area except towards inner margin; antemedial line indistinctly double, red-brown, excurved, incurved above inner margin; a curved red-brown medial line, oblique towards costa and inner margin; reniform a small brown spot defined by white and with black points at its upper and lower extremities; postmedial line double, brown filled in with white and defined by white on outer side, oblique, sinuous; subterminal line whitish defined on outer side by brown, waved, excurved below costa, bent inwards at vein 3 and ending at tornus; a waved dark terminal line. Hind wing white tinged with blue-grey and suffused with fuscous brown especially before the postmedial line and with red-brown before the subterminal line, the termen blue-white; a black discoidal point defined by white, with traces of a sinuous whitish line from it to inner margin; postmedial line double filled in with white, strongly excurved at middle, then incurved and ending at tornus; subterminal line whitish defined on inner side by red-brown

suffusion and some small obscure dark spots, and on outer by some fuscous, waved; some dark points and striæ on termen; cilia tinged with rufous. Underside of both wings suffused with red-brown and dark brown, the inner areas whitish; fore wing with blackish antemedial and medial lines angled outwards in cell, a small white spot defined by black in middle of cell, a slight black and white discoidal lunule with diffused black spot beyond it followed by the rather punctiform postmedial line excurved beyond the cell, a waved subterminal line excurved below costa, and a terminal series of slight dark lunules defined on inner side by whitish; hind wing with sinuous black discoidal striga defined by white, minutely dentate postmedial line with whitish points on its outer edge, waved whitish subterminal line, and terminal series of minute black lunules defined on inner side by white.

Hab. Dutch N. Guinea, Fak-fak (*Pratt*), 1 ♂ type. *Exp.* 22 millim.

6273. ? Chlumetia duplicilinea. (Plate CLXXV. fig. 24.)

Hadena duplicilinea, Wlk. xxxiii. 727 (1865).

♀. Head, thorax, and abdomen dark brown mixed with grey. Fore wing dark brown mixed with greyish; subbasal line represented by double striæ from costa; the antemedial area with a diffused black shade; antemedial line indistinct, double, oblique from costa to just below the cell; reniform a white bar with dark striga in centre; medial line arising at vein 6 beyond the cell, oblique, sinuous; postmedial line indistinct, double, oblique from costa to discal fold, then inwardly oblique, another line beyond it defined on outer side by white, oblique from costa to vein 6, then waved, the white beyond it forming a rounded patch in submedian interspace, a black spot beyond it above vein 4 and quadrate patch on costal area with some white points on costa; subterminal line white, slightly excurved below vein 7; a terminal series of slight dark lunules. Hind wing dark brown, a faint whitish bar from vein 3 to termen at submedian fold; a terminal series of dark striæ interrupted by white points at the veins; a fine whitish line at base of cilia; the underside whitish irrorated with brown, a dark discoidal lunule, curved waved medial and postmedial lines, and double subterminal line.

Hab. Assam, Khásis, 1 ♀; Borneo, Sarawak (*Wallace*), type † ♀ in Mus. Oxon. *Exp.* 30 millim.

*6274. Chlumetia hampsoni. (Plate CLXXV. fig. 25.)

Eutelia hampsoni, Beth.-Baker, Nov. Zool. xiii. p. 228 (1906).

♀. Head and thorax grey-white mixed with brown; palpi with brown patch at base of 2nd joint; tegulæ rufous on outer edge; patagia rufous with whitish upper edge; pectus and legs greyer, the tarsi

banded with fuscous; abdomen greyish tinged with rufous, the dorsum irrorated with fuscous except towards extremity, the ventral surface whitish with black segmental bands. Fore wing whitish suffused with rufous to postmedial line, the inner margin pale grey; the base deeper rufous and bounded by a sinuous dark line bent outwards to inner margin; antemedial line double, blood-red on costal area, then waved and widely separated, filled in with blackish below the cell; claviform defined by black, extending to cell; orbicular whitish defined by black except below, elliptical; reniform defined by black except above, rather irregular and concave towards base; two reddish striæ from medial part of costa and a waved reddish line from lower angle of cell to inner margin; a diffused black-brown line beyond the cell; postmedial line black, oblique from costa to vein 6, slightly bent inwards below discal fold, angled outwards at vein 3, then incurved, the area beyond it white tinged with yellow to vein 3, the apical area white; subterminal line black, oblique to vein 6, angled inwards at discal fold and excurved to termen at submedian fold, the area beyond it black below vein 6 and a black patch before it from vein 3 to tornus; a terminal series of black striæ; cilia black with slight yellowish striæ at base. Hind wing fuscous brown, the termen whitish; traces of a postmedial line defined by greyish on outer side and with whitish mark at inner margin; a terminal series of black striæ; cilia white with series of fuscous marks; the underside bluish white irrorated with fuscous, a slight discoidal spot, medial shade from costa to discal fold, waved blue-white postmedial line with fuscous band on inner side and black line on outer from costa to discal fold, then a fuscous band and terminal series of small black lunules.

Hab. Br. N. Guinea, Ekeikei (*Pratt*), type † ♀ in Coll. Bethune-Baker. *Exp.* 24 millim.

6275. Chlumetia alternans.

Chlumetia alternans, Moore, Lep. Atk. p. 147 (1882); Hmpsn. Moths Ind. ii. p. 376.

♂. Head white mixed with brown; palpi with black rings on 2nd and 3rd joints; tegulæ brown with blackish annuli; thorax blackish mixed with brown and grey; pectus and legs brown and whitish, the tarsi ringed with white; abdomen fuscous brown with obscure triangular whitish dorsal patches except at base, the ventral surface white suffused with brown at extremity. Fore wing with the basal area chocolate-brown, the rest of wing greyish suffused with red-brown; a faint waved subbasal line from costa to submedian fold; antemedial line double, slightly waved towards costa, traces of a line formed by a few black scales beyond it from discal fold to vein 1; the discal and submedian folds with whitish streaks to subterminal line; reniform with whitish annulus slightly defined by black, somewhat constricted at middle; medial line represented

by a waved striga from costa and oblique waved line with a dark shade beyond it from lower angle of cell to inner margin; post-medial line double, rather diffused, red-brown, obliquely excurved and very slightly waved, the outer line slightly defined by white; terminal area with some dark suffusion, the subterminal line being

Fig. 24.—*Chlumetia alternans*, ♂. ½.

represented by white scaling broadly and irregularly diffused from costa to vein 3; a terminal series of black-brown striæ; cilia chequered whitish and black. Hind wing grey suffused with brown; a slight whitish striga below extremity of vein 3; cilia with white line at base and white tips; the underside white irrorated with brown, a black discoidal point, indistinct oblique minutely waved medial and postmedial lines, double subterminal line, and a terminal series of black points.

♀. Palpi whiter, blackish at base, tegulæ more rufous; fore wing with an olive-green tinge except on basal and terminal areas.

Hab. Sikhim, 1800′ (*Dudgeon*, *Möller*), 1 ♂, 4 ♀. *Exp.* 28–30 millim.

6276. **Chlumetia cana**, n. sp. (Plate CLXXX. fig. 5.)

♀. Head white, the palpi with some grey, the antennæ grey-brown; thorax grey mixed with some brown; abdomen grey-white with slight dark irroration, the ventral surface white towards base. Fore wing pale grey with slight dark irroration, the antemedial area with a pale rufous tinge except at inner margin; a faint dark medial line, excurved to median nervure, then oblique; reniform very indistinct, whitish, elliptical, with dark points on its inner and outer sides above; postmedial line indistinct, double, curved, some white points beyond it on costa with blackish streaks between them; subterminal line very indistinct, curved, tinged with rufous towards costa; a terminal series of black points. Hind wing white irrorated with brown; the terminal area tinged with brown; cilia chequered with blackish to vein 2 and with blackish mark at vein 1; the underside grey-white sparsely irrorated with black, a black discoidal spot, traces of a sinuous postmedial line, some black points on termen towards apex and a striga towards tornus.

Hab. Germ. E. Africa, Ruaka Valley, Iringa (*Neave*), 1 ♀ type. *Exp.* 26 millim.

Sect. II. Antennæ of male with the basal half pectinated with very short branches on outer side only, the apical half ciliated.

6277. Chlumetia transversa.

Nachaba transversa, Wlk. xxvii. 114 (1863); Moore, Lep. Ceyl. iii. p. 67, pl. 151. f. 3; Hmpsn. Moths Ind. ii. p. 376.
Chlumetia guttiventris, Wlk. xxxiv. 1271 (1865).
Ariola corticea, Snell. Tijd. v. Ent. xxiii. p. 89, pl. 6. f. 10 (1880).

Head, thorax, and abdomen dark brown mixed with grey and some red-brown; palpi with black band on 2nd joint; tarsi ringed with white; abdomen with the crests black, ventral white spots on 3rd, 4th, and 5th segments. Fore wing grey suffused with reddish brown; subbasal line double, from costa to submedian fold; reniform rather pale and slightly defined by black, elliptical; medial line minutely waved, double at costa; postmedial line double, the inner line red-brown, the outer black, minutely dentate below costa and at middle; subterminal line whitish, excurved below vein 7 and at middle and defined on inner side by blackish patches at those points and below vein 3; a terminal series of black striæ and a fine

Fig. 25.—*Chlumetia transversa*, ♂. $\frac{3}{2}$.

white line at base of cilia. Hind wing grey-brown; a faint whitish bar from vein 3 to termen at submedian fold; a fine black terminal line and white line at base of cilia; the underside grey suffused and irrorated with brown, a blackish discoidal spot, rather diffused waved medial and postmedial lines, double subterminal line, and a terminal series of black lunules.

Hab. Hab. ign., 1 ♀ type; Punjab (*Horne*), 2 ♂, Manpuri, 1 ♂, 2 ♀; Bengal, Calcutta, 1 ♂, Ganjam; Bombay, Thanna Distr., 1 ♂; Ceylon (*Nietner*), 3 ♀ type *guttiventris*; Burma, Rangoon (*Scott*), 1 ♀; Perak, Goping (*Künstler*), 1 ♀; Singapore (*Ridley*), 1 ♂, 5 ♀; Bali (*Doherty*), 1 ♂, 1 ♀; Celebes; D'Entrecasteaux Is., Fergusson Is. (*Meek*), 1 ♂. *Exp.* 18–22 millim.

Genus **PATÆTA**.

	Type.
Patæta, Wlk. xv. 1748 (1858)	*conspicienda*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd long; frons smooth; eyes large, round; antennæ of male almost simple; thorax clothed with scales and hair mixed, the prothorax without crest, the metathorax with spreading crest; tibiæ

moderately fringed with hair; abdomen with dorsal ridge of scales on 1st segment and crest on anal segment, the paired anal tufts small. Fore wing with the apex rounded, the termen evenly curved, crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing strongly glossed with blue-black ..... *carbo.*
B. Fore wing grey-brown with hardly a trace of blue-black gloss ..... *conspicienda.*

6278. **Patæta carbo.** (Plate CLXXV. fig. 26.)

Phlegetonia carbo, Guen. Noct. ii. p. 302 (1852).

Head, thorax, and abdomen black tinged with purplish grey, the palpi in front, frons, and dorsum of tegulæ with some reddish brown; pectus mostly white with some rufous in front; tarsi ringed with white; ventral surface of abdomen white, mixed with red-brown towards extremity. Fore wing glossy blue-black; subbasal line indistinct, double, waved, from costa to vein 1; a single antemedial line followed by a double line, slightly angled outwards just below the cell and inwards at vein 1; orbicular and reniform defined by black and with traces of pale annuli, the former minute, round, the latter narrow and somewhat constricted at middle; a slight sinuous medial line from lower angle of cell to inner margin; postmedial line double, bent outwards below costa, slightly incurved at discal fold and incurved below vein 4, another double sinuous line beyond it incurved below vein 3; traces of a pale minutely waved subterminal line with black streaks beyond it between veins 6 and 4; a terminal series of small black lunules. Hind wing pure white, the terminal area fuscous, its inner edge emitting slight streaks on the veins and angled inwards at vein 2 on which there are slight white striæ towards termen; a waved black terminal line and white line at base of cilia; the underside white, the costal and terminal areas suffused with brown and irrorated with white, a blackish discoidal spot and double postmedial series of minute streaks on the veins.

Hab. Br. N. Guinea, Port Moresby, 4 ♂; Queensland, Kuranda (*Simmonds*), 1 ♂, Brisbane (*Turner*), 1 ♂, 2 ♀, Taylor Range (*Lyell*), 1 ♀, Rockhampton, 1 ♂; N. Australia, Port Darwin (*J. J. Walker*), 1 ♂, 1 ♀, Institute Is. (*J. J. Walker*), 1 ♀. *Exp.* 36–40 millim.

6279. **Patæta conspicienda.**

Patæta conspicienda, Wlk. xv. 1748 (1858).
Phlegetonia corvina, Snell. Tijd. v. Ent. xxiii. p. 68, pl. 6. f. 1 (1880).

Head, thorax, and abdomen fuscous black mixed with some grey; palpi whitish in front; pectus white, tinged with rufous in front; tarsi ringed with white; abdomen with the dorsal crest black, the

ventral surface white mixed with brown and fuscous towards extremity. Fore wing fuscous brown mixed with grey and with a faint bluish gloss; subbasal line indistinctly double, minutely waved, from costa to vein 1; two double minutely waved antemedial lines; orbicular and reniform with slight whitish annuli defined by black, the former minute, round, the latter narrow, oblique; medial line arising at upper extremity of reniform, at vein 4 bent inwards to lower edge of reniform, then oblique and sinuous; postmedial line

Fig. 26.—*Patæta conspicienda*, ♂. ½.

double, slightly bent outwards below costa, then slightly waved, incurved below vein 4, another double waved line beyond it, incurved below vein 3; an indistinct waved whitish subterminal line, sometimes with slight black streaks beyond it above and below vein 5; a terminal series of slight black lunules and fine pale line at base of cilia. Hind wing hyaline white, the terminal area suffused with fuscous brown and the veins streaked with fuscous from just beyond the cell; some white striæ on vein 2 towards extremity; cilia white with a blackish line through them; the underside with the costal and terminal areas irrorated with brown, a double postmedial series of minute black streaks on the veins.

Hab. Celebes; Queensland, Brisbane (*Turner*), 1 ♂, 2 ♀, Moreton Bay (*Gibbons*, *Diggles*), 2 ♀ type; N. Australia, Adelaide R. (*J. J. Walker*), 1 ♂, Roebuck Bay (*J. J. Walker*), 2 ♀, Port Darwin (*Buckland*), 1 ♂, Alexandria (*Stalker*), 1 ♂; W. Australia, Sherlock R. (*Clements*), 5 ♀, Derby (*Lower*), 1 ♀. *Exp.* 24–34 millim.

Genus **PHLEGETONIA**.

	Type.
Phlegetonia, Guen. Noct. ii. p. 301 (1852)	*catephioides.*
Targalla, Wlk. xiii. 1007 (1857)	*delatrix.*
Cryassa, Wlk. xv. 1745 (1858)	*bifascies.*
Colpocheilopteryx, Wllgrn. Svensk. Akad. Handl. v. 4, p. 60 (1865)	*operatrix.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to middle of frons and broadly scaled, the 3rd moderate; frons smooth, with tuft of scales; eyes large, round; antennæ of male typically serrate and fasciculate; thorax clothed with scales and hair mixed and without distinct crests; tibiæ moderately fringed with hair; abdomen with some ridges of hair at base, but without crests and with slight paired anal tufts of hair. Fore wing with the apex rounded, the termen crenulate, oblique or excised below vein 3; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with the cell less than half the length of wing; veins 3, 4 from angle; 5 fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Antennæ of male minutely serrate and fasciculate.

A. (*Colpocheilopteryx*). Fore wing with the termen distinctly angled at vein 3, then excised and sinuous.
  a. Fore wing with the basal area suffused with purplish pink, the triangular patch on costa before apex purplish pink ..... *operatrix*.
  b. Fore wing with the basal area and the triangular patch on costa before apex rufous.
    a^1. Fore wing without white spot before subterminal line in discal fold..... *callichroma*.
    b^1. Fore wing with white spot before subterminal line in discal fold ..... *violescens*.

6280. Phlegetonia operatrix.

Eutelia operatrix, Wllgrn. Wien. Ent. Mon. iv. p. 170 (1860).
Eurhipia rosea, Mab. & Vuillot, Nov. Lep. p. 6, pl. 1. f. 4 (1890).

Head and thorax yellow tinged with rufous; tibiæ with deep rufous band at extremities, the spurs white ringed with black; abdomen yellow suffused with red-brown except at base and extremity. Fore wing yellow tinged with rufous; the base of costal area suffused with crimson; antemedial line treble, crimson and with crimson suffusion between the lines, highly curved; the veins of terminal area slightly streaked with rufous; medial line rufous, oblique from costa to vein 6, inwardly oblique and sinuous below vein 4; postmedial line treble, rufous, the two outer lines crimson towards costa, sinuous, oblique to vein 6, inwardly oblique

Fig. 27.—*Phlegetonia operatrix*, ♂. ½.

below vein 4, a triangular purple patch beyond it on costal area with two white points on costa; subterminal line rufous, incurved below costa, slightly angled inwards at discal fold and below vein 4, then oblique, sinuous, and closely approximated to postmedial line, the area beyond it pale yellow with some rufous suffusion at middle, some pale yellow before it from below vein 7 to above 4 emitting a striga defining the apex of the triangular purple patch; a rufous terminal line; cilia rufous, the tips deep rufous between veins 6 and 3. Hind wing yellowish white, the terminal area suffused with rufous from apex to vein 3; traces of a postmedial line; a fine rufous terminal line; cilia rufous on apical half, then yellowish.

Hab. Congo; N.E. Rhodesia, E. Loangwa Distr. (*Neave*), 1 ♂; Cape Colony, Caffraria, type † ♀ in Mus. Stockholm. *Exp.* 34 millim.

6281. **Phlegetonia callichroma.** (Plate CLXXV. fig. 27.)

Eutelia callichroma, Dist. Entom. xxxiv. p. 284 (1901).

Head, thorax, and abdomen pale yellow; patagia rufous except at extremity; abdomen with subdorsal rufous stripes meeting towards extremity, a quadrate dorsal patch on 3rd segment, the crests on two subterminal segments black. Fore wing pale yellow; the basal area rufous in and below cell; an antemedial band angled outwards below costa towards which it consists of fuscous irroration, below the cell oblique and rufous with a yellow line on it from vein 1 to the lobe of inner margin; an indistinct medial line angled outwards beyond lower angle of cell, the area beyond it suffused with rufous and with black point just beyond it on inner margin; a fine, slightly sinuous yellow postmedial line traversing an oblique brown band with pale outer edge from costa to vein 5, incurved below vein 4; a quadrate chestnut patch with pale points on it on costa before apex; a fine yellow subterminal line angled outwards on vein 6 and nearly to termen on vein 3; some chestnut suffusion on medial part of termen and three dark terminal lunules below apex; cilia with dark rufous patches at veins 3, 5, and 6. Hind wing pale yellow with slightly sinuous brown subterminal band and terminal band from apex to vein 2; the underside with dark discoidal spot and curved medial line.

Hab. Gambia (*Maloney*), ♂ in Coll. Druce; Delagoa Bay; Transvaal, 1 ♀, Lydenburg, type † ♀ in Coll. Distant. *Exp.* 28 millim.

6282. **Phlegetonia violescens**, n. sp. (Plate CLXXVI. fig. 1.)

Head and tegulæ rufous, the thorax whitish tinged with rufous; palpi white in front at base; pectus and legs white, the fore and mid tibiæ red-brown, the hind tibiæ blackish, the spurs and mid and hind tarsi near base with black rings; abdomen pale rufous. Fore wing with the basal half and costal area pale rufous, the rest of wing golden copper-red; a faint dark subbasal line defined on inner side by whitish, angled outwards below costa, then oblique to a blackish point below median nervure near base and with slight blackish marks beyond it below median nervure and on vein 1; a fine black medial line defined an outer side by white, angled outwards below costa, then oblique and defined on inner side by violaceous grey and whitish; a narrow grey discoidal lunule defined by white; a fine blackish postmedial line slightly defined by white on inner side, sinuous, oblique to vein 6, below vein 3 strongly incurved and again excurved below submedian fold, with violaceous grey suffusion beyond it except towards costa, an oblique whitish line beyond it from costa to vein 6 followed by some white points on costa; a white subterminal line from below costa to below vein 5 with white spot before it at discal fold; a series of black points before termen. Hind wing fuscous brown, the interspaces of basal

area whitish; some whitish on termen towards tornus; cilia red-brown. Underside of fore wing with the costal area irrorated with brown, some red suffusion below postmedial part of costa and a grey apical patch, the rest of wing fuscous brown with the inner area whitish; hind wing pale grey irrorated with brown, a double dark discoidal striga and indistinct double sinuous subterminal line except towards costa.

Hab. Gambia (*Maloney*), type ♂ in Coll. Druce; N. Nigeria, Punguma (*Anderson*), 1 ♀ type. *Exp.* 30 millim.

B. Fore wing with the termen slightly excurved at vein 6, angled at vein 4, then oblique.

6283. Phlegetonia holocausta.

Eutelia holocausta, Hmpsn. A. M. N. H. (7) xvi. p. 379 (1905).

♀. Head, thorax, and base of abdomen fiery rufous; tegulæ with blackish patches at base; palpi long; abdomen rufous tinged with grey, with small lateral chocolate-red spots on 3rd and 4th segments. Fore wing fiery rufous slightly tinged with grey and irrorated with fuscous; traces of an antemedial red line, oblique below the cell; a fiery red spot in middle of cell; a faint pale discoidal lunule;

Fig. 28.—*Phlegetonia holocausta*, ♀. ½.

traces of a double postmedial line oblique from costa to vein 6 and below vein 4; a chocolate-red patch on costa before apex outwardly defined by an oblique white line with some fuscous beyond it; traces of a subterminal line excurved at middle, then strongly incurved, with minute dentate chocolate marks before it above and below vein 5 and slight rufous marks above and below 2; termen angled at vein 4, then oblique. Hind wing fiery rufous with small chocolate-red spots on inner margin towards tornus; the underside with chocolate discoidal spot and minutely waved medial, postmedial, and subterminal lines, obsolescent on costal half.

Hab. S. Nigeria, Sapele (*Sampson*), 1 ♀ type. *Exp.* 32 millim.

C. (*Phlegetonia*). Fore wing with the termen oblique and crenulate below vein 3.
  a. Hind wing white with dark terminal band ..... *catephioides.*
  b. Hind wing fuscous brown with the basal area whitish.
    a^1. Fore wing with black spot on outer edge of postmedial line in submedian interspace ..... *porphyriota.*

b^1. Fore wing without black spot on outer edge of post-medial line in submedian interspace.
a^2. Fore wing with the reniform narrow bar-shaped . *cebeæ.*
b^2. Fore wing with the reniform constricted at middle ..... *apicifascia.*

6284. Phlegetonia catephioides.

Phlegetonia catephioides, Guen. Noct. ii. p. 301 (1852).

Head, thorax, and abdomen fuscous or reddish brown more or less tinged with grey; tegulæ with black line near base. Fore wing fuscous or reddish brown tinged with grey, the inner half greyer except at base and tornus; subbasal line double, blackish, minutely waved; antemedial line treble, excurved from below costa to vein 1; a whitish streak in terminal part of cell traversing the reniform, which is slightly defined by grey and with brown spots on its upper and lower parts; a faint oblique sinuous medial line from beyond lower angle of cell to inner margin; postmedial line treble, oblique

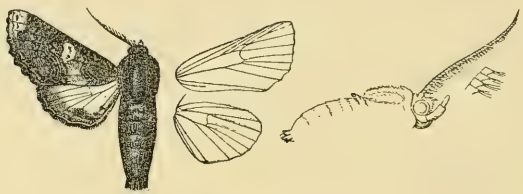


Fig. 29.—*Phlegetonia catephioides*, ♂. ½.

and slightly sinuous from costa to vein 6, incurved at discal fold and below vein 4, an indistinct blackish line beyond it, angled at vein 4, then incurved; a blue-grey apical patch and a crenulate black line just before termen. Hind wing pure white, the terminal area brown tinged with grey at termen and on cilia; a slight crenulate black line just before termen; the underside irrorated with brown except on inner area, two brown discoidal striæ and traces of a medial line and double postmedial line.

Hab. Transvaal, White R. (*Cooke*), 1 ♀; Natal, Durban (*Bowker*, *Bell-Marley*), 3 ♂, 1 ♀. *Exp.* 38–40 millim.

6285. Phlegetonia porphyriota, n. sp. (Plate CLXXV. fig. 28.)

♂. Head, thorax, and abdomen grey mixed with some reddish brown; palpi fuscous at base. Fore wing purplish grey tinged in parts with fuscous and irrorated with blackish; antemedial line whitish, erect, sinuous, with a blackish shade before it above and below vein 1; a faint pinkish spot in middle of cell and pinkish discoidal bar with black points on it at upper and lower angles of

cell; postmedial line double, brown filled in with whitish, bent outwards below costa, excurved to vein 6, then oblique, a conical black-brown mark beyond it in submedian interspace; a triangular black-brown patch with two white points at costa on costal area before the subterminal line, which is white and oblique to vein 6 near postmedial line, then double, brown and incurved to below vein 4 where it is angled outwards, then indistinct, incurved and waved to tornus, the area beyond it grey-brown from apex to below vein 4; a terminal series of small black lunules; cilia pale rufous with some black scales towards apex and a blackish patch at middle. Hind wing grey suffused with fuscous brown, the base paler; a blackish terminal line defined on inner side by grey; cilia pale rufous; the underside grey irrorated with brown, a blackish discoidal lunule, waved purplish red medial line, double crenulate purplish red postmedial line with black points at the veins, crenulate purplish red subterminal line, and terminal series of small black lunules.

Hab. S. Nigeria, Lagos (*Boag*), 1 ♂ type. *Exp.* 36 millim.

*6286. **Phlegetonia cebeæ.** (Plate CLXXV. fig. 29.)

Eutelia kebeæ, Beth.-Baker, Nov. Zool. xiii. p. 229 (1906), ♀.
Eutelia albicomma, Beth.-Baker, Nov. Zool. xiii. p. 229 (1906), ♂.

♀. Head bright rufous mixed with dark brown; antennæ black-brown; thorax very dark red-brown with some rufous at base of tegulæ; pectus and legs rufous and dark brown, the tarsi blackish ringed with white, the hind legs paler; abdomen black-brown with black dorsal spots on basal segments, curved rufous dorsal patch on 4th to 6th segments and some rufous in anal tuft, the ventral surface rufous with a blackish band near extremity. Fore wing black-brown slightly mixed with rufous, the terminal area blue-grey slightly irrorated with brown; subbasal line represented by a black striga from costa and sinuous line of ochreous scales to submedian fold; two indistinctly double black antemedial lines filled in with some ochreous scales and the inner line with white at inner margin, minutely waved, oblique from costa to submedian fold; orbicular a minute white spot defined by black; reniform a narrow olive-grey bar defined by black, with white line on its inner edge and dark points on upper and lower edges; an oblique reddish yellow medial band from costa to reniform and thence to inner margin; three black postmedial lines, the middle one indistinctly double and filled in with ochreous, very minutely waved, obliquely excurved from costa to discal fold, then incurved, the outer line defined by yellowish on outer side towards costa; a triangular black-brown patch on postmedial costal area with three whitish points on costa, the subterminal black line arising from its apex, defined by ochreous on outer side, waved, angled inwards to postmedial line at discal fold, ending below vein 4 in a spot and followed by a slight dark shade bent outwards to tornus; a terminal series of slight blackish striæ interrupted by white points at the veins;

cilia fuscous brown with series of slight grey marks. Hind wing fuscous brown, greyish at base; some black striæ on vein 2 and inner margin towards tornus; a terminal series of black striæ with white points between them; cilia fuscous brown with slight pale line at base and some grey towards tornus; the underside bright rufous slightly irrorated with black, the base and inner area mostly white, a black discoidal spot, minutely waved curved medial line, postmedial curved series of minute dentate black marks with white points on their outer side, and two minutely waved subterminal lines.

♂. Fore wing with the antemedial lines more distinctly filled in with yellowish towards costa; the terminal area concolorous, the triangular costal patch defined by white and with bluish white mark on its outer edge, the outer postmedial line slightly defined by white on outer side and with a large oblique comma-shaped white mark beyond it between veins 2 and 1, the small black spot below vein 4 followed by two black points with some white before them; hind wing with the basal area whiter.

Hab. Br. N. Guinea, Mt. Kebea (*Pratt*), type † ♀ and type ♂ *albicomma* in Coll. Bethune-Baker, Ekeikei. *Exp.* 30 millim.

6287. **Phlegetonia apicifascia.** (Plate CLXXV. fig. 30.)

Eutelia apicifuscia, Hmpsn. Moths Ind. ii. p. 394 (1894); Semper, Reise Phil., Schmett. ii. p. 535, pl. 60. f. 10.
Eutelia dinawa, Beth.-Baker, Nov. Zool. xiii. p. 229 (1906).

Head brown mixed with greyish; palpi banded with black; thorax pale purplish rufous, the tegulæ black at base; tibiæ banded with black and whitish, the tarsi black ringed with white; abdomen pale rufous, the basal crest brown followed by an ochreous patch on next two segments defined by brown patches at sides, the ventral surface with small white spot on 3rd segment. Fore wing red-brown suffused with purplish grey; a minutely dentate subbasal line from costa to submedian fold defined on inner side by ochreous grey; antemedial line with greyish band on its inner side, yellowish white, acutely angled outwards below costa, then incurved, dark and excurved below vein 1, a dark line beyond it from cell to inner margin, excurved below the cell and incurved at vein 1; orbicular white defined by black, small, oblique elliptical; reniform brown defined by black and with slight incomplete whitish annulus, figure-of-eight-shaped, a fulvous spot beyond it; a medial black striga from costa and oblique waved line from just beyond lower angle of cell to inner margin; postmedial line double and filled in with white from costa to vein 5, defined by white on outer side to vein 6, below vein 5 defined on outer side by brownish grey with a brownish grey band before it, and produced to slight black and white streaks on the veins, oblique from costa to vein 4, then inwardly oblique and slightly sinuous, two white points beyond it on costa; an oblique brownish grey streak from costa just before apex, the veins on it streaked with white, the subterminal line greyish, arising from the oblique streak at vein 7, excurved at vein 4, then

minutely waved, the area beyond it purplish plum-colour with some red beyond the oblique streak towards apex and some blackish at middle; a terminal series of slight black lunules and white points at the veins; cilia red-brown, mixed with black on inner half. Hind wing brown, the interspaces of basal area white, the termen tinged with purplish; traces of a postmedial line defined on outer side by white; two black striæ with pink between them at tornus; a fine black terminal line with white points at the veins and a pale subterminal line from vein 3 to tornus; cilia rufous with a whitish line at base; the underside white suffused with purplish pink except on inner area and irrorated with black, a black discoidal spot, minutely waved medial line, double postmedial line, and subterminal shade at middle and towards tornus.

Ab. 1. *dinava*. Fore wing without the fulvous spot beyond the reniform and with the oblique streak from costa near apex rufous.—N. Guinea.

Hab. Bombay (*Leith*), 1 ♀ type; Ceylon, Gampola (*Mackwood*), 1 ♂, W. Haputale (*Mackwood*), 1 ♂; Straits Settlements, Province Wellesley (*Ridley*), 1 ♂; Singapore (*Ridley*), 3 ♂, 5 ♀; Philippines, Luzon; Br. N. Guinea, Sogeri, 1 ♀. *Exp.* 24–30 millim.

Sect. II. (*Targalla*). Antennæ of male almost simple and laminate.

A. Fore wing with oblique dark fascia from the angle of postmedial line to termen at vein 3.
  a. Abdomen with dorsal series of fuscous spots on pale triangular patches ..... *albiapicata*.
  b. Abdomen without dorsal series of triangular patches ... *albiceps*.
B. Fore wing without oblique dark fascia from the angle of postmedial line to termen at vein 3.
  a. Fore wing without truncate conical dark patch on costa before apex.
    a^1. Fore wing with the subterminal line angled inwards at discal fold.
      a^2. Fore wing with the subterminal line angled inwards below costa ..... *stictoprocta*.
      b^2. Fore wing with the subterminal line not angled inwards below costa ..... *fasciatrix*.
    b^1. Fore wing with the subterminal line not angled inwards at discal fold.
      a^2. Fore wing with the reniform bar-shaped ..... *scelerata*.
      b^2. Fore wing with the reniform lunulate ..... *strigula*.
  b. Fore wing with prominent truncate conical dark patch on costa before apex.
    a^1. Fore wing with the inner half of medial area not suffused with black.
      a^2. Fore wing with the basal half not darker than the terminal half, the coloration variegated ..... *bifascies*.
      b^2. Fore wing with the basal half more or less darker than the terminal half, the coloration much more uniform ..... *delatrix*.
    b^1. Fore wing with the inner half of medial area suffused with black.
      a^2. Fore wing with the outer half of medial area concolorous with the terminal area ..... *atripars*.
      b^2. Fore wing with the outer part of medial area white except towards costa, the terminal area reddish ochreous ..... *mediofusca*.

6288. **Phlegetonia albiapicata.** (Plate CLXXV. fig. 31.)

Eutelia albiapicata, Hmpsn. Ann. S. Afr. Mus. ii. p. 444 (1902).

♀. Head, thorax, and abdomen grey tinged with red-brown and mixed with fuscous; palpi black at base and extremity; antennæ blackish; tarsi black ringed with whitish; abdomen with dorsal series of black spots on pale triangular patches and subdorsal black points. Fore wing ochreous suffused with red-brown, the area to antemedial line and on costal area to reniform suffused with fuscous, the area from reniform to postmedial line pale ochreous, the apex with some white suffusion; antemedial line double, slightly angled outwards below costa, excurved to submedian fold, then obliquely incurved; reniform pale olive-yellow with faint incomplete whitish annulus, rather constricted at middle, its inner edge straight; medial line arising at upper extremity of reniform, excurved to vein 4, angled inwards at vein 2 and excurved above vein 1; two double postmedial lines with some whitish between them, oblique from costa to discal fold, then inwardly oblique and sinuous, the inner line with oblique black bar from vein 7 to discal fold continued beyond the outer line to termen below vein 4; a faint waved whitish subterminal line, slightly angled inwards below costa; a fine waved black terminal line with small spots at the interspaces; cilia rufous slightly intersected with black. Hind wing fuscous; two black striæ with a whitish striga between them at inner margin towards tornus and a sinuous whitish bar from vein 3 to termen at vein 1; a waved black terminal line; cilia rufous with some blackish scales; the underside whitish irrorated with brown, the terminal area suffused with purplish red, a black discoidal spot, curved minutely crenulate medial and postmedial lines, and double subterminal line.

Hab. Natal, Durban (*Leigh*), 1 ♀ type. *Exp.* 26 millim.

6289. **Phlegetonia albiceps.** (Plate CLXXV. fig. 32.)

Eutelia albiceps, Hmpsn. Moths Ind. ii. p. 392 (1894).
Eutelia picticolor, Hmpsn. Moths Ind. iv. p. 528 (1896).
Ptisciana ioda, Swinh. A. M. N. H. (7) iii. p. 114 (1899).

♂. Head and thorax black mixed with some ochreous and rufous; palpi ochreous, black at base; pectus and legs mostly ochreous, the tarsi black with pale rings; abdomen ochreous and rufous with some black, the ventral surface ochreous. Fore wing suffused with black and tinged with leaden grey to the reniform and on inner area to outer antemedial line, the area from reniform to postmedial line ochreous and the terminal area and inner area beyond antemedial line pale yellow-green; two double slightly sinuous antemedial lines, oblique from costa to just below median nervure, the inner line filled in with green below the cell; reniform rufous with pale annulus, narrow; medial line slight, arising at upper extremity of reniform beyond which it is excurved, oblique and sinuous from lower extremity of reniform to inner margin; postmedial line treble,

sinuous, oblique from costa to vein 6, then inwardly oblique and with slight white points on the veins between the double inner line which has a strong V-shaped black mark on it between veins 7 and 4, the outer line with oblique dark bar from it at discal fold to termen at vein 3 and slight white points on its outer edge at veins 4, 3; a quadrate black patch on costal area with some white points on costa before the subterminal line, which is very indistinct, pale with some white suffusion beyond it below costa, slightly excurved below vein 7, some black suffusion beyond it at middle; a terminal series of slight black lunules; cilia black mixed with greyish. Hind wing fuscous brown; two blackish striæ with whitish striga between them at inner margin towards tornus, and a faint whitish bar from vein 3 to termen at vein 1; the underside whitish irrorated with brown and suffused with purplish red on postmedial costal area, a blackish discoidal spot, curved medial line, dentate postmedial line, double crenulate subterminal line, and terminal series of lunules.

♀. Thorax and basal half of fore wing with much less black suffusion.

Hab. Bombay, Kanara, Karwar, type † *ioda* in Coll. Davidson; Madras, Nilgiris, 1 ♀; Ceylon, Nawalapitiya (*Pole*), 1 ♂ type *picticolora*; Burma, Tenasserim Valley (*Doherty*), type † ♀ in Coll. Druce; Singapore (*Ridley*), 2 ♀. *Exp.* 22–24 millim.

6290. **Phlegetonia stictoprocta.** (Plate CLXXVI. fig. 2.)

Eutelia stictoprocta, Hmpsn. Trans. Ent. Soc. 1895, p. 304; id. Moths Ind. iv. p. 529.

♀. Head, thorax, and abdomen reddish brown mixed with some grey; the spurs and tarsi ringed with whitish; abdomen with small ventral white spots on 3rd and terminal segments. Fore wing brown tinged with purplish grey; antemedial line black, oblique from costa to discal fold, then inwardly oblique; reniform a very narrow and oblique white bar with black centre; postmedial line indistinctly double, oblique from costa to vein 6, where it is rather acutely angled, then inwardly oblique, sinuous and excurved below submedian fold; some whitish points beyond it on costa; subterminal line indistinct, whitish, defined on inner side by black marks from below costa to below vein 4, angled inwards below costa and at discal and submedian folds and outwards at veins 6 and 4; a terminal series of small blackish lunules slightly defined by white; a fine whitish line at base of cilia. Hind wing fuscous brown, the basal area whitish, some blackish striæ at inner margin towards tornus; a terminal series of blackish striæ and fine pale line at base of cilia; the underside whitish irrorated and suffused with brown, a large black discoidal spot, indistinct waved medial and postmedial lines, and sinuous subterminal line with some whitish beyond it towards tornus.

Hab. Sikhim (*Dudgeon*), 1 ♀ type. *Exp.* 30 millim.

6291. Phlegetonia fasciatrix. (Plate CLXXVI. fig. 3.)

Eurhipia fasciatrix, Semp. Reise Phil., Schmett. ii. p. 711, pl. 66. f. 20 (May, 1902).
Eutelia moneida, Lower, P. Linn. Soc. N.S.W. xxvi. p. 659 (May 20th, 1902.)

Head, thorax, and abdomen brown mixed with black and some greyish; pectus and legs whitish irrorated with brown. Fore wing brown suffused with purplish fuscous; subbasal line indistinct, from costa to submedian fold; two double widely separated antemedial lines, oblique and slightly waved from costa to just below cell, then excurved and slightly angled inwards at vein 1; reniform a quadrate white spot defined by black; medial line arising at upper extremity of reniform, excurved to vein 4, then oblique and sinuous; postmedial line double, bent outwards below costa, excurved to vein 4, then oblique, slightly excurved below submedian fold and with greyish points on it at the veins, a double, curved, minutely waved line filled in with greyish beyond it, the area beyond it suffused with greyish ochreous except towards costa on which there are some pale points; subterminal line greyish ochreous, waved below vein 7 and defined on inner side by black lunules between veins 7 and 4; a terminal series of small black lunules and minute white points at the veins. Hind wing pale suffused with fuscous brown especially on terminal area; some black striæ at inner margin and on terminal half of vein 2; a terminal series of slight black lunules from apex to submedian fold defined on inner side by whitish; cilia with a fine whitish line at base; the underside whitish, the costal and terminal areas tinged with purplish red and irrorated with brown, a black discoidal lunule, curved medial line, crenulate postmedial line, double waved subterminal line, and terminal series of lunules.

Ab. 1. *moneida*. Fore wing with the reniform brownish ochreous defined by some white points.

Hab. Philippines, Luzon; Queensland, Townsville (*Dodd*), 2 ♂, 1 ♀, Mackay, 2 ♀. *Exp.* 22–28 millim.

*6292. Phlegetonia scelerata. (Plate CLXXVI. fig. 4.)

Eutelia scelerata, Holl. Nov. Zool. vii. p. 564 (1900).

♂. Head, thorax, and abdomen brown mixed with grey-white, the last with the crests dark at tips and a blackish band before anal tuft; palpi with blackish bands at base and extremity of 2nd joint and just before tip of 3rd joint; mid and hind tarsi blackish with the extremities white. Fore wing brown mixed with greyish; subbasal line double, blackish, waved, from costa to vein 1; antemedial line indistinct, double, incurved at vein 1; an indistinct double sinuous medial line; reniform bar-shaped, with slight white annulus defined by blackish; postmedial line double, blackish, excurved from costa to vein 5, then oblique and slightly excurved

above vein 1; a minutely dentate white subterminal line defined on inner side by a dark line and a dark patch on costal area with some whitish points on costa, some slight dark points beyond it from vein 7 to termen below vein 4 and an oblique yellowish mark at tornus; a terminal series of slight blackish lunules. Hind wing brown, whitish towards base; some dark marks along vein 2 and at tornus; a terminal series of slight dark lunules defined on inner side by white striæ and with white points between them on apical half; the underside whitish suffused with red-brown especially on costal and terminal areas, a dark discoidal spot, slight medial line excurved at middle, two minutely waved curved postmedial lines, a faint waved subterminal line, and terminal series of lunules.

Hab. Buru (*Doherty*), type † ♂ in Coll. Holland. *Exp.* 24 millim.

*6293. Phlegetonia strigula. (Plate CLXXVI. fig. 5.)

Eutelia strigula, Holl. Psyche, vii. p. 31, pl. 1. f. 21 (1894).

♀. Head and thorax grey mixed with fuscous brown; tibiæ and tarsi fuscous ringed with whitish; abdomen grey suffused with some fuscous and rufous. Fore wing grey irrorated with fuscous and with some rufous suffusion beyond the reniform; subbasal line double, blackish, from costa to submedian fold; antemedial line double, blackish, minutely waved, angled outwards in submedian fold; reniform whitish defined by black; medial line blackish, excurved beyond the reniform, then incurved; postmedial line double, blackish, excurved from costa to discal fold, then oblique to submedian fold; subterminal line whitish defined on inner side by blackish, waved, excurved at middle, then incurved; a lunulate black terminal line. Hind wing fuscous brown with traces of medial, postmedial, and subterminal lines with blackish striæ at inner margin; a black terminal line slightly defined on inner side by grey and interrupted by white points at the veins; cilia brownish ochreous; the underside white suffused with fiery red and irrorated with brown except on inner area, a black discoidal lunule, curved medial line, and closely approximated postmedial and subterminal lines.

Hab. Gaboon, Ogowe R., type † ♀ in Coll. Holland. *Exp.* 30 millim.

6294. Phlegetonia bifascies.

Cryassa bifascies, Wlk. xv. 1745 (1858); Moore, Lep. Ceyl. iii. p. 64, pl. 151. ff. 5, 5*a*; Hmpsn. Moths Ind. ii. p. 391.
Eutelia repleta, Wlk. xxxiii. 821 (1865).
Eutelia impleta, Wlk. xxxiii. 822 (1865).

Head, thorax, and abdomen grey-brown to red-brown with a few black scales; palpi whitish, the 2nd joint black and rufous except in front and at extremity; frons whitish; tibiæ and tarsi whitish banded with black; abdomen with the basal segments often

dorsally suffused with greyish fuscous. Fore wing purplish grey more or less completely suffused with rufous and olive-brown, the antemedial area less suffused; an indistinct blackish subbasal line from costa to vein 1; antemedial line double, the lines widely separated, waved, oblique from costa to submedian fold; orbicular a white point; reniform with white annulus, narrow, the upper extremity produced and acute, often with a black streak between it and orbicular; medial line arising at upper extremity of reniform, excurved to vein 4, then oblique and double; postmedial line indistinctly double, filled in with white at costa, bent outwards below costa, then minutely dentate, angled outwards at vein 5, then oblique and with some white points on it, another line beyond it, excurved to vein 5, then oblique and produced to black and white streaks on the veins; a quadrate red-brown patch, with some white points on costa, on costal area before the subterminal line, which is whitish defined on inner side by an oblique black striga at middle, oblique to vein 7, then somewhat dentate, angled inwards at discal and submedian folds and outwards at vein 4; a series of black points just before termen. Hind wing fuscous brown, some whitish in the interspaces towards base; some black and whitish striæ on veins 2 and 1 towards termen and traces of a whitish line from vein 3 to tornus; cilia red-brown, whitish at base; the underside whitish suffused with rufous and irrorated with black, a black discoidal spot, waved medial line, double crenulate postmedial and subterminal lines, and terminal series of black points.

Hab. Ceylon (*Templeton*, *Lewis*), 4 ♂, 6 ♀, type, and types *repleta* and *impleta*. *Exp.* 33–40 millim.

Larva. Green; head paler; warts with a few fine short hairs; spiracles brown; subdorsal and lateral lines slender, pale yellow.

6295. Phlegetonia delatrix.

Penicillaria delatrix, Guen. Noct. ii. p. 304 (1852); Hmpsn. Moths Ind. ii. p. 391.
Penicillaria palliatrix, Guen. Noct. ii. p. 305 (1852).
Targalla infida, Wlk. xiii. 1008 (1857); Moore, Lep. Ceyl. iii. p. 63, pl. 151. ff. 6, 6 *a*.
Penicillaria ludatrix, Wlk. xv. 1773 (1858).
Eutelia opposita, Wlk. Journ. Linn. Soc., Zool. vii. p. 67 (1864).
Eutelia subocellata, Wlk. Journ. Linn. Soc., Zool. vii. p. 67 (1864).
Eutelia plusioides, Wlk. xxxiii. 822 (1865).
Eurhipia prætexta, Feld. Reis. Nov. pl 111. f. 24 (1874).

Head, thorax, and abdomen red-brown with a few blackish scales especially in the thoracic crests; palpi whitish in front; frons whitish; pectus whitish; tarsi fuscous ringed with white. Fore wing purplish grey suffused with brown, the basal half rather darker; subbasal line represented by traces of a curved striga from costa; antemedial line indistinct, double, the lines widely separated, waved, orbicular represented by a white point; reniform with black-brown centre and white annulus, very narrow, constricted at

middle, its inner edge straight; medial line arising at upper extremity of reniform, excurved to vein 4, then indistinctly double, oblique, slightly waved; a triangular blackish patch beyond the reniform before the postmedial line, which is represented by a white striga from costa, a black line between veins 6 and 4, angled outwards at vein 5, and a black bar at inner margin, otherwise almost obsolete, faint traces of another curved waved line beyond it; a quadrate black-brown patch, with pale points at costa, on costal area before the subterminal line, which is very indistinct, pale faintly defined on inner side by brown, oblique to vein 7, then minutely waved and angled outwards at vein 4; a terminal series of black points; cilia

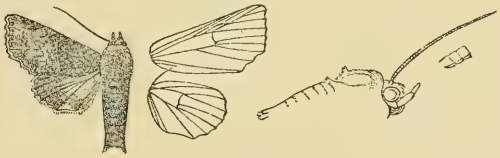


Fig. 30.—*Phlegetonia delatrix*, ♂. ½.

red-brown. Hind wing fuscous brown, the interspaces greyish towards base; some black striæ on veins 2 and 1 towards termen and a faint whitish line from vein 3 to tornus; cilia red-brown with a fine pale line at base; the underside grey suffused and irrorated with red-brown except on inner area, a black discoidal spot, indistinct curved waved medial line and double crenulate postmedial and subterminal lines.

Ab. 1. *plusioides*. Fore wing somewhat greyer with the lines more prominent.

Ab. 2. *palliatrix*. Fore wing paler, the lines more prominent especially the two postmedial lines, the reniform with rufous centre and without black patch beyond it.

Hab. Punjab, Simla (*Harford*), 1 ♂, 1 ♀, Deyra Dhún, 1 ♀; Sikhim (*Möller*), 2 ♂, 1 ♀; Assam, Khásis, 1 ♀; Bombay (*Swinhoe*), 1 ♀, Canara (*Ward*), 1 ♀; Madras, Nilgiris, 1 ♀, Coimbatore (*Walhouse*), 1 ♂ type *plusioides*, Palnis (*Campbell*), 1 ♂; Travancore, Pirmád (*Fergusson*), 1 ♀; Ceylon (*Templeton*), 1 ♂, 1 ♀ type *ludatrix*; Burma, Moulmein (*Clark*), 1 ♀ type *infida*; Singapore (*Ridley*, *Lewis*), 8 ♂, 6 ♀; Borneo, Sarawak (*Wallace*), types † ♂ *opposita* and *subocellata* in Mus. Oxon.; Java (*Horsfield*), 7 ♂, 5 ♀ type, and type *palliatrix*; Christmas I. (*Andrewes*), 2 ♀; Dutch N. Guinea, Kapaur (*Doherty*), 1 ♀; Queensland, Townsville (*Dodd*), 1 ♂, Brisbane (*Turner*), 1 ♂, 1 ♀. *Exp.* 30–38. millim.

Larva. Green, paler at sides, subdorsal line slender, whitish; a lateral series of small spots.

Pupa in a slight cocoon under leaves and excrement.

6296. **Phlegetonia atripars**, n. sp. (Plate CLXXVI. fig. 6.)

Head and thorax ochreous suffused with rufous; palpi with the 2nd joint above except towards tip and the base of 3rd joint black; tegulæ with two dark medial lines; metathoracic crest dark at tips; tarsi black with pale rings; abdomen with dorsal blackish brown patch on three basal segments and dorsal black spots on 2nd to 5th segments. Fore wing ochreous mostly suffused with rufous, the base and basal half of medial area suffused with black; subbasal line double, from costa to submedian fold; two double, curved, waved antemedial lines; orbicular ochreous white defined by black, minute, round; reniform large, ochreous with some rufous in centre and defined by black on inner side; medial line brown, arising at upper extremity of reniform, excurved to vein 5, then oblique, sinuous; two double postmedial lines, dentate and produced to points at the veins, excurved from costa to vein 5, then incurved, a black streak from the inner to subterminal line above vein 5, the outer part of outer line not dentate below vein 5; a quadrate blackish patch with three white points at costa on costal area before the subterminal line, which is whitish defined on inner side by slight blackish marks between veins 7 and 4, angled outwards at vein 7, then slightly waved and excurved at middle, the area beyond it blackish at middle and tornus; a fine crenulate black terminal line; cilia pale rufous and blackish. Hind wing ochreous white, the terminal half suffused with reddish brown, traces of waved whitish postmedial and subterminal lines; some black striæ at inner margin towards tornus; a fine black terminal line interrupted by pale points at the veins; cilia ochreous at base, blackish at tips; the underside ochreous tinged with rufous and irrorated with black, a black discoidal spot, slightly crenulate medial line excurved beyond the cell, double crenulate postmedial line with another waved line just beyond it between veins 6 and 4, and terminal series of black points.

Hab. Perak, Goping (*Künstler*), 1 ♀; Java (*Horsfield*), 1 ♂ type; Dutch N. Guinea, Fak-fak (*Pratt*), 1 ♀. *Exp.* 44 millim.

*6297. **Phlegetonia mediofusca.** (Plate CLXXVI. fig. 7.)

Eutelia mediofusca, Beth.-Baker, Nov. Zool. xiii. p. 228 (1906).

♂. Head rufous mixed with white and black; palpi black at extremity of 1st joint, at base and extremity of 2nd joint, the extremity of 3rd joint black and white; antennæ blackish; thorax rufous; pectus and legs rufous mixed with whitish and black; abdomen grey mixed with black and some rufous. Fore wing with the basal costal area blackish with black points on its outer edge below costa and in and below cell, followed by the indistinct waved subbasal line from costa to submedian fold; antemedial area greyish to the double black antemedial line with oblique white striga at costa, angled outwards below costa and above inner margin and

obliquely curved between those points; basal half of medial area suffused with black, the outer half white, except at costa, met at vein 6 by an oblique white band from costa before apex; orbicular a white point defined by black; reniform with blackish centre and whitish annulus, constricted at middle; a diffused blackish medial shade; postmedial line double and oblique from costa to vein 6, filled in with white and defined by white on outer side, then represented by an obliquely curved series of black points on the veins slightly angled inwards at submedian fold, a tringular black mark beyond it on costa with two white points on it; subterminal line indistinctly double, incurved from costa to discal fold and with minute black streak on its inner side at vein 6, angled inwards at vein 5, then waved and ending at tornus; a fine waved terminal line with black points in the interspaces; cilia red-brown. Hind wing greyish suffused with fuscous brown especially on the veins and terminal area; some blackish striæ on vein 2 and on inner margin towards tornus; a diffused whitish medial band from lower angle of cell to inner margin and diffused whitish subterminal line from vein 5 to tornus; a waved black terminal line; cilia rufous with a white line at base; the underside whitish tinged with purple except below the cell, a black discoidal spot, diffused, curved, slightly waved medial line, double postmedial curved series of black points, traces of subterminal line at costa, middle, and tornus, and waved terminal line with black points at the interspaces.

Hab. Br. N. Guinea, Dinawa (*Pratt*), type † ♂ in Coll. Bethune-Baker. *Exp.* 28 millim.

Genus **THYRIODES.**

	Type.
Thyriodes, Guen. Noct. iii. p. 364 (1852)	*flabellum.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to above vertex of head and fringed with hair in front and behind towards extremity, the 3rd long and fringed with hair behind towards extremity; frons smooth with flattened tuft of long scales above; eyes large, round; antennæ of male bipectinate with rather long branches to apex; thorax clothed almost entirely with scales, the pro- and metathorax with spreading crests; build slender; fore tibiæ fringed with long hair; abdomen with dorsal crests on basal segments, and with lateral series of tufts, the paired anal tufts short. Fore wing long and narrow, the apex somewhat produced and acute, the termen evenly curved and slightly crenulate; veins 3 and 5 from near angle of cell, 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Mid tibiæ of male with a fringe of scales covering a fold containing a fringe of scales; antennæ of female bipectinate with short branches.

6298. Thyriodes flabellum.

Thyriodes flabellum, Guen. Noct. iii. p. 365, pl. 23. f. 11 (1852); Druce, Biol. Centr.-Am., Het. i. p. 408.

Head, thorax, and abdomen dark red-brown mixed with purplish grey; antennæ with the basal joint white in front; tarsi ringed

with white. Fore wing purplish grey irrorated with dark brown; subbasal line slight, blackish, oblique, from costa to submedian fold; antemedial line black slightly defined on inner side by grey, excurved from costa to median nervure, then incurved to just above inner margin, then upwards and outwards and down to inner margin, thus forming a sinus filled with dark brown and with a triangular dark brown patch beyond it at costa, these antemedial markings followed by a straight oblique pale grey band; reniform defined by dark brown and with straight oblique inner edge; an oblique dark brown medial shade; postmedial line dark brown, oblique slightly sinuous and defined on outer side by white from costa to vein 6, incurved at discal fold, below vein 3 retracted to inner side of lower edge of reniform, and sinuous to inner margin, some dark brown beyond it towards costa and some whitish points on costa with dark streaks between them; subterminal line whitish, oblique, sinuous and defined on inner side by brown towards costa, with a small wedge shaped black spot before it below costa

Fig. 31.—*Thyriodes flabellum*, ♂. $\frac{1}{1}$.

and a quadrate spot below vein 7 connected with the postmedial line, then reduced to minute white streaks on the veins, with a few black scales at middle and a small black spot at submedian fold; a fine waved dark terminal line with a series of minute points in the interspaces; cilia grey-brown with a fine pale line at base. Hind wing brown, the basal area whitish, a slight dark terminal line; cilia with fine white line at base and whitish tips. Underside of fore wing grey, the costal area to postmedial line and the termen irrorated with brown, the postmedial area suffused with brown, the postmedial line defined on outer side by white, reduced to spots between veins 8 and 6; hind wing purplish grey irrorated with brown, the costal area except towards base and terminal area suffused with brown, a slight white discoidal lunule defined at sides by brown, postmedial line brown defined on outer side by white, minutely waved, oblique towards costa and ending near tornus.

Hab. Mexico, Teapa, Tabasco (*H. H. Smith*), 1 ♂; Guatemala, San Geronimo (*Champion*), 1 ♂, Volcan de Atitlan (*Champion*), 1 ♂, Godman-Salvin Coll.; Costa Rica; Panama. *Exp.* 32–34 millim.

Sect. II. Mid tibiæ of male without fold and fringes of scales; antennæ of female ciliated.

*6299. Thyriodes dissimilis.

Thyriodes flabellum, Druce, Biol. Centr.-Am., Het. i. p. 408 (part), nec Guen.
Marathyssa dissimilis, Druce, A. M. N. H. (8) viii. p. 149 (1911).

Head and thorax reddish brown, the tips of tegulæ, upper edge of patagia and tip of metathoracic crest blackish; palpi and sides of frontal tuft dark-brown; pectus grey-brown; fore coxæ black-brown; legs dark brown with the spurs, the extremities of tibæ and the tarsi slightly ringed with white; abdomen grey-brown with the crests blackish at tips and a white ring before anal tuft. Fore wing grey-brown with slight dark irroration; a slight sinuous dark subbasal line from costa to submedian fold; antemedial line black, excurved to below cell, then strongly incurved and bent outwards and sinuous just above inner margin, with triangular chocolate-brown patches beyond it from costa and in the sinus above inner margin; a dark medial shade; reniform

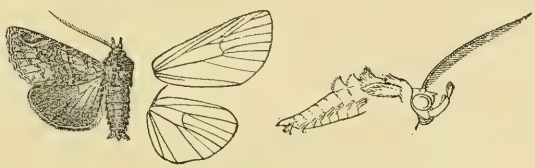


Fig. 32.—*Thyriodes dissimilis*, ♂. ½.

large and defined by blackish; postmedial line black, sinuous, very oblique and defined on outer side by white from costa to vein 6, below vein 3 bent inwards to lower edge of reniform, then incurved, a semi-elliptical patch beyond it on costal area, defined by black, with dentate black mark on its outer edge and some whitish points on costa; traces of an oblique waved subterminal line with blackish points on it above and below vein 5 and at submedian fold; a fine crenulate blackish terminal line. Hind wing fuscous-brown with the basal area whitish; a whitish and black striga above tornus and fine whitish line at base of cilia. Underside of fore wing with the postmedial line defined on outer side by small white spots, the postmedial points on costa white, a white striga from costa before apex; hind wing dark brown with the inner area white, whitish points at end of cell, on middle of costa, and in discal fold beyond the cell, a slight oblique line towards tornus and some white on termen near tornus.

Hab. Costa Rica; Panama, Chiriqui (*Champion, Ribbé*), 2 ♂, 2 ♀, Godman-Salvin Coll.; Colombia, Minca (*H. H. Smith*), 2 ♂. *Exp.* 32 millim. Type † ♂ in Coll. Druce.

Genus MARATHYSSA.

	Type.
Marathyssa, Wlk. xxxiii. 1033 (1865)	*basalis.*
Marasmalus, Grote, Trans. Am. Ent. Soc. iv. p. 89 (1872)...	*basalis.*
Schazama, Schaus, Pr. U.S. Nat. Mus. xxx. p. 108 (1906) ...	*angustipennis.*

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching about to vertex of head and moderately scaled, the 3rd typically moderate; frons smooth, with large tuft of scales; eyes large, round; antennæ with tuft of scales on basal joint, of male typically bipectinate with rather long branches, the apical part ciliated; build slender; thorax clothed almost entirely with scales, the prothorax with speading crest, the metathorax with paired crests; tibiæ slightly fringed with hair; abdomen with dorsal crests on basal and terminal segments, the latter typically large, lateral tufts of hair and small paired anal tufts. Fore wing narrow, the apex somewhat produced, the termen obliquely curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Antennæ of male bipectinate with moderate branches to beyond middle, the apex ciliated; abdomen with the crests on terminal segments large.

A. Palpi with the 3rd joint very long.

6300. Marathyssa harmonica.

Eutelia harmonica, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 453, pl. A. f. 4 (1897).

♂. Head, thorax, and abdomen ochreous white mixed with dark brown; frontal tuft and the tuft on basal joint of antennæ black-brown; tegulæ with pair of black spots at middle; tarsi brown with pale rings; ventral surface of abdomen red-brown.

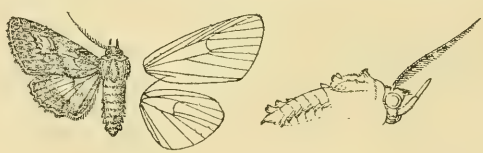


Fig. 33.—*Marathyssa harmonica*, ♂. ½.

Fore wing ochreous white tinged with red-brown; a black patch on costa before the dentate brown antemedial line; a black discoidal spot; medial line oblique from costa to reniform, inwardly oblique and somewhat dentate from lower angle of cell to inner margin; postmedial line double, bent outwards below costa, then minutely dentate, excurved to vein 4, then oblique, some oblique white striæ beyond it from costa; subterminal line formed of slight dentate ochreous marks defined by brown; a fine waved black terminal line and ochreous line at base of cilia. Hind wing ochreous white tinged with brown, the terminal area suffused

with brown except in submedian interspace; a slight discoidal spot, indistinct medial line and postmedial and subterminal black striæ at vein 2 and inner margin; cilia ochreous white at base, rufous at tips; the underside with large blackish discoidal spot, the medial and postmedial lines more distinct, a diffused subterminal band and terminal series of small black lunules.

♀. Fore wing with red-brown band before the antemedial line.

Hab. Sikhim, 1800′ (*Dudgeon*), 1 ♂ type; Madras, Nilgiris, Coonoor (*Lindsay*), 1 ♀.

B. Palpi with the 3rd joint moderate.
  a. Hind wing with bright rufous patch on termen and cilia at vein 2 ..... *basalis.*
  b. Hind wing without rufous patch on termen and cilia at vein 2 ..... *angustipennis.*

6301. Marathyssa basalis.

Marathyssa basalis, Wlk. xxxiii. 1034 (1865).
Marasmalus ventilator, Grote, Trans. Am. Ent. Soc. iv. p. 89 (1872); Smith, Cat. Noct. N. Am. p. 239.

♂. Head and thorax white mixed with fiery red and red-brown; pectus and legs white, the tibiæ and tarsi banded with blackish; abdomen white mixed with red-brown and black, the basal segments with white subdorsal streaks and segmental lines. Fore wing white suffused with red-brown, the costal area to beyond middle and the submedian fold whiter; subbasal line represented by a white striga from costa defined on outer side by black and with fiery red and black spot defined by white beyond it; antemedial line indistinctly double, blackish filled in with white, interrupted, strongly excurved;

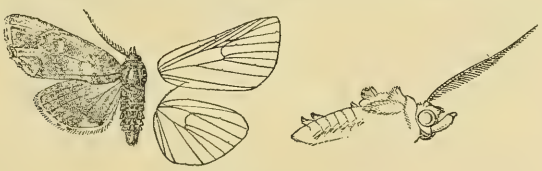


Fig. 34.—*Marathyssa basalis*, ♂. ½.

traces of a curved brown medial line interrupted in cell and submedian fold; reniform white with blackish points in upper and lower extremities, narrow, the upper extremity rather produced; postmedial line indistinctly double filled in with white, bent outwards below costa, oblique to vein 6 where it is angled, then inwardly oblique and sinuous, another whitish line defined on outer side by some black scales beyond it, forming a triangular spot on costa, excurved to vein 4, then incurved; subterminal line white, excurved at vein 7 and middle and with some black suffusion before it, incurved at discal fold; a terminal series of black striæ; cilia white with black spots at base from apex to vein 3 and black

tips at apex and middle. Hind wing white suffused with reddish brown; an indistinct interrupted waved white subterminal line with a fiery red patch beyond it and on base of cilia at vein 2, then becoming terminal; a white striga at inner margin before tornus with black striga before it and patch beyond it; a terminal series of dark striæ from apex to vein 2; cilia white with a brown line through them; the underside white irrorated with brown and black, a black discoidal spot and diffused medial, postmedial, and subterminal bands.

Hab. Canada; U.S.A., 2 ♂, Grote Coll., Massachusetts, New York and south to Texas and west to Nebraska, Kansas, and Colorado; hab. ign. 2 ♂ type. *Exp.* 36 millim.

6302. Marathyssa angustipennis. (Plate CLXXVI. fig. 8.)

Schazama angustipennis, Schaus, Pr. U.S. Nat. Mus. xxx. p. 109 (1906).

♂. Head grey with some rufous between antennæ; tegulæ grey with some rufous at tips; thorax rufous with diffused black bands at middle and behind; abdomen grey tinged with red-brown. Fore wing grey-white irrorated with brown, the costal, inner, and terminal areas suffused with red-brown, leaving thinly scaled whitish fasciæ in and beyond cell and in submedian interspace; subbasal line represented by a curved black striga from costa, the antemedial line by a black point on costa and oblique black bar from submedian fold to inner margin; a small black spot defined by whitish at upper angle of cell; postmedial line double towards costa, excurved below costa then single and obsolescent, bent inwards at vein 5 and at lower angle of cell to origin of vein 2, then obliquely incurved to inner margin where there is a small blackish spot, some whitish streaks beyond it between the veins of costal area. Hind wing white slightly irrorated with pale brown and with wedge-shaped brownish streaks on terminal area at discal and submedian folds and tornus; a fine blackish terminal line; cilia rufous with a dark line through them from apex to submedian fold, then whitish; the underside white sparsely irrorated with black, a blackish discoidal spot and postmedial series of minute black streaks on the veins.

Hab. Brazil, Castro Paraña, in Coll. D. Jones. *Exp.* 32 millim.

Sect. II. Antennæ of male serrate and fasciculate; abdomen with the crests on terminal segments slight.

6303. Marathyssa inficita.

Eutelia inficita, Wlk. xxxiii. 818 (1865); Smith, Cat. Noct. N. Am. p. 239. *Marasmalus histrio*, Grote, Trans. Am. Ent. Soc. iv. p. 297 (1872).

Head and thorax brown mixed with grey, the frons, ridge of scales between antennæ, tips of tegulæ and base of patagia fiery red; tarsi brown ringed with white; abdomen grey with dorsal brown and

red bands and slight black segmental bars, the ventral surface fuscous mixed with grey. Fore wing purplish grey suffused with brown; some rufous suffusion before the antemedial line, which is black, slightly waved and interrupted from costa to vein 1 and

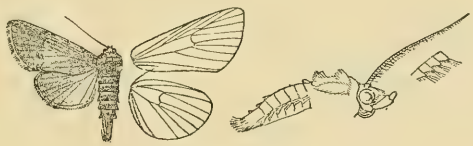


Fig. 35.—*Marathyssa inficita*, ♂. ½.

bent inwards to inner margin; the medial area with more or less prominent whitish streaks except on costal area; a small triangular black spot defined by white at upper angle of cell; postmedial line indistinct, double, blackish filled in with white, interrupted at discal and submedian folds, bent outwards below costa, then sinuous, some white points beyond it on costa; subterminal line slight, whitish, dentate, defined on inner side by an oblique rufous band from costa to below vein 7; a terminal black-brown line; cilia white with two slight brown lines through them and fuscous brown patches at apex and middle. Hind wing white suffused with brown especially on terminal area, the submedian fold whiter; a blackish terminal line; cilia white with a brown line through them and fuscous patches at middle and tornus; the underside white irrorated with brown, a large blackish discoidal spot and indistinct diffused curved postmedial and subterminal lines.

Hab. Canada; U.S.A. (*Doubleday, Grote*), 5 ♂, 4 ♀ type, south to Texas and west to Nebraska, Kansas, and Colorado. *Exp.* 26–34 millim.

Sect. III. Antennæ of male ciliated.

A. Abdomen with dorsal white spot on 4th segment ..... *cuneata.*
B. Abdomen without dorsal white spot on 4th segment.
  a. Fore wing with white patches before and beyond the reniform which is slight ..... *albidisca.*
  b. Fore wing with ochreous patches before and beyond the reniform which is well developed ..... *cistellatrix.*

6304. Marathyssa cuneata.

Eutelia cuneata, Saalm. Lep. Madag. p. 381, f. 179 (1891).
Eutelia cyanotopha, Hmpsn. A. M. N. H. (7) xvi. p. 384 (1905).

♂. Head and thorax rufous mixed with some whitish; tegulæ with blackish medial line and dark tips; metathorax with pair of blue-black spots; abdomen whitish dorsally suffused with rufous, the 1st segment with pair of blue-black spots, the 4th with dorsal white spot. Fore wing rufous suffused with greyish; the cell from

near base, the area beyond it, and the submedian interspace with rubbed appearance; subbasal line represented by slight double striæ from costa filled in with grey; antemedial line with two oblique striæ from costa and oblique dark bar to the lobe on inner

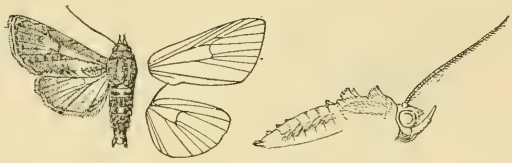


Fig. 36.—*Marathyssa cuneata*, ♂. ½.

margin with white bar beyond it; reniform an ill-defined lunule with rufous tuft of scales at upper angle of cell; postmedial line faint, oblique, waved, from costa to vein 6, defined by grey on inner side; the terminal half of inner area with some grey and blackish striæ; some obscure dark points just before termen and a fine terminal line. Hind wing semihyaline whitish, the veins and terminal area suffused with brown; some dark striæ on inner margin towards tornus and a rufous mark at extremity of vein 2; cilia whitish; the underside with two black discoidal points, traces of a curved medial line and a diffused subterminal band.

♀. Fore wing with the rubbed appearance confined to the extremity of cell.

Hab. Gold Coast, Aburi (*Johnson*), 1 ♂, 1 ♀; Br. E. Africa, Athi-ya-Mawe (*Betton*), 1 ♂ type, Njoro (*Cholmley*), 2 ♀; Uganda, Entebbe (*Minchin*), 2 ♂, 2 ♀; Mashonaland, Umtali (*Marshall, Dobbie*), 2 ♂, 3 ♀; Transvaal, White R. (*Cooke*), 1 ♀. *Exp.* 30–34 millim.

6305. Marathyssa albidisca. (Plate CLXXVI. fig. 9.)

Eutelia albidisca, Hmpsn. A. M. N. H. (7) xvi. p. 385 (1905).

♂. Head, thorax, and abdomen fuscous irrorated with white and a few black scales; metathoracic crest white and rufous; tarsi ringed with white; abdomen with subdorsal tufts of white hair at base and white patch on terminal segment, the crests dark, the ventral surface whitish. Fore wing greyish fuscous irrorated with white, the cell and discal area pure white; a curved black antemedial line bent outwards to inner margin; a curved black medial line interrupted in cell; a discoidal lunule and striga beyond upper angle of cell; postmedial line represented by a black point on costa, a black striga from below costa to vein 5 and an indistinctly double sinuous line from cell to inner margin; subterminal line slight, white, irregularly dentate, excurved from below costa to vein 6; a terminal series of small black lunules. Hind wing white, the terminal area fuscous, broadly so at costa, narrowing to tornus; the

underside with the costal and terminal areas suffused with grey and irrorated with brown, a black discoidal lunule and ill-defined, slightly waved medial and postmedial lines interrupted at middle and on inner area.

Hab. Cape Colony, Brak Kloof (*Mrs. White*), 1 ♂ type. *Exp.* 26 millim.

6306. **Marathyssa cistellatrix.** (Plate CLXXVI. fig. 10.)

Eurhipia cistellatrix, Wllgrn. Wien. Ent. Mon. iv. p. 170 (1860).
Aglossa ocularis, Butl. A. M. N. H. (4) xvi. p. 412 (1875).

♀. Head, thorax, and abdomen red-brown mixed with grey, the extremity of metathorax and dorsal crests of abdomen black-brown; pectus whitish. Fore wing brown suffused with grey; subbasal line represented by a slight curved black striga from costa; antemedial line slight, black, obliquely curved, expanding into a spot above inner margin, a slight ochreous white streak in submedian fold from it to termen; ochreous white patches in and beyond the cell with the rather diffused black reniform between them; postmedial line very indistinct and double towards costa, bent outwards below costa, then black, oblique and dentate to submedian fold, then extremely oblique; subterminal line indistinct, diffused, ochreous white slightly defined on inner side by blackish, dentate, angled inwards below costa; a waved black terminal line. Hind wing ochreous white tinged with brown, the terminal area broadly grey-brown; traces of a punctiform postmedial line with small black spot at vein 1; a slightly waved ochreous white line from vein 6 to termen at submedian fold; a waved black terminal line; the underside white, the costal half irrorated with brown, the terminal area suffused with brown, a black discoidal spot, traces of medial line, rather diffused waved postmedial line, and waved whitish and rufous subterminal line.

Hab. Natal (*Burrows*), 1 ♀ type *ocularis*; Cape Colony, Caffraria, type † in Mus. Stockholm. *Exp.* 34 millim.

Genus **ANIGRÆA.**

Type.
Anigrea, Wlk. Journ. Linn. Soc., Zool. vi. p. 139 (1862) ..... *rubida.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and moderately scaled, the 3rd long; frons smooth, with tuft of scales; eyes large, round; antennæ of male almost simple; thorax clothed almost entirely with scales and without crests; tibiæ moderately fringed with hair; abdomen long with lateral tufts of scales and paired anal tuft but without crests. Fore wing long and narrow, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a minute areole, which in some individuals disappears entirely; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Hind wing with the basal half whitish.
  a. Fore wing with whitish patches before and beyond the reniform ..... *albomaculata.*
  b. Fore wing without whitish patches before and beyond the reniform ..... *ochrobasis.*
B. Hind wing with pale streaks below the cell ..... *mediopunctata.*
C. Hind wing nearly uniformly suffused with fuscous.
  a. Abdomen not ochreous with the base deep purplish.
    a^1. Fore wing not nearly uniform dark brown.
      a^2. Fore wing without large dark apical patch.
        a^3. Fore wing with the ground-colour not bluish white.
          a^4. Fore wing with the ground-colour not pale yellow-green.
            a^5. Fore wing with the postmedial line not dentate.
              a^6. Fore wing with dark streak in discal fold beyond antemedial line, the postmedial line with faint dentate pale mark before it between veins 7, 6 ..... *mediifascia.*
              b^6. Fore wing without dark streak in discal fold beyond antemedial line, the postmedial line with distinct dentate pale mark before it between veins 7, 6 ..... *deleta.*
            b^5. Fore wing with the postmedial line minutely dentate.
              a^6. Fore wing ochreous tinged with olive... *cinctipalpis.*
              b^6. Fore wing ochreous suffused with red-brown ..... *homochroa.*
          b^4. Fore wing with the ground-colour pale yellow-green ..... *viridata.*
        b^3. Fore wing with the ground-colour bluish white..... *deletoides.*
      b^2. Fore wing with large dark apical patch ..... *phœopera.*
    b^1. Fore wing nearly uniform dark brown.
      a^2. Fore wing with small white spot on inner margin before subterminal line ..... *siccata.*
      b^2. Fore wing without white spot on inner margin before subterminal line ..... *rubida.*
  b. Abdomen ochreous with the base deep purplish ..... *purpurascens.*

6307. **Anigræa albomaculata.** (Plate CLXXVI. fig. 11.)

Eutelia albomaculata, Hmpsn. Moths Ind. ii. p. 393 (1894).

♀. Head, thorax, and abdomen reddish brown mixed with fuscous and greyish; tegulæ with black annuli; tarsi ringed with whitish; abdomen with dorsal whitish bands on 1st two segments. Fore wing reddish brown tinged with grey; a diffused white fascia in discal fold from near base to well beyond middle interrupted by the rather diffused brown reniform spot; a diffused whitish fascia in submedian fold from base to beyond middle and a pure white spot on termen; faint traces of a sinuous dark postmedial line incurved below vein 4 and traces of a minutely waved greyish subterminal line; a fine white line at base of cilia. Hind wing white, the terminal area broadly brown; a fine white line at base of cilia;

the underside with the costal area irrorated with brown, the brown terminal area interrupted at submedian interspace.

Hab. Sikhim, 1800′ (*Dudgeon*), 1 ♀. *Exp.* 16 millim. Type † in Coll. Rothschild.

6308. **Anigræa ochrobasis**, n. sp. (Plate CLXXVI. fig. 12.)

Head and thorax red-brown mixed with purplish grey; tegulæ with blackish annuli; pectus whitish, the tarsi ringed with whitish; abdomen fuscous and grey, white at base, with dorsal series of slight black bars and curved mark on 5th segment. Fore wing brown suffused with purplish grey; a subbasal dark point below costa; antemedial line indistinct, double, dentate, with dark point at median nervure, oblique towards inner margin; a diffused blackish discoidal spot, with dark line from it to inner margin, incurved to vein 1, then very oblique; postmedial line double, oblique from costa to vein 6, inwardly oblique to vein 2, then incurved to vein 1 and very strongly bent inwards to inner margin near medial line; an indistinct double subterminal line, minutely waved towards costa, angled outwards at middle and inwards at discal and submedian folds, a whitish patch beyond it in submedian interspace; a fine black terminal line; cilia fuscous brown, whitish towards tornus. Hind wing fuscous brown, the basal half creamy white below discal fold; slight pale subterminal marks between vein 3 and submedian fold; cilia with slight white line at base and white tips; the underside ochreous white, the costal and terminal areas suffused with fuscous brown, a dark discoidal bar, traces of curved postmedial line and some grey on termen towards apex and in submedian interspace.

Hab. Queensland, Townsville (*Dodd*), 1 ♂, 2 ♀ type. *Exp.* 30 millim.

6309. **Anigræa mediopunctata.** (Plate CLXXVI. fig. 13.)

Lophoptera mediopunctata, Pag. Zoologica, xii. Hft. 29, p. 92 (1900).
Eutelia muttia, Swinh. A. M. N. H. (7) viii. p. 130 (1901).

♂. Head and thorax grey-white tinged with ochreous brown, the metathorax suffused with fuscous; palpi white in front at base; legs mostly fuscous; abdomen white tinged with brown except at base and with series of slight curved dorsal lines, the line on 5th segment black, the ventral surface fuscous with subventral series of white points on slight streaks. Fore wing grey suffused with reddish brown; a dark subbasal point below costa; antemedial line blackish, obliquely curved, almost obsolete towards costa; a round blackish discoidal spot with faint oblique line from it to inner margin; postmedial line indistinctly double filled in with greyish, oblique from below costa to vein 6, then inwardly oblique and angled inwards in submedian fold; traces of a pale subterminal line, excurved below vein 7 and at middle and angled inwards at discal fold; a fine black terminal line and pale line at base of cilia.

Hind wing fuscous brown with some ochreous white in interspaces of basal half below the cell; a fine white line at base of cilia; the underside ochreous white, the costal and inner areas irrorated with fuscous, the terminal area fuscous from apex to vein 2, a blackish discoidal spot, curved postmedial line, and traces of sinuous subterminal line from costa to discal fold.

♀. Head, thorax, abdomen, and fore wing much more purple-brown, the last with blackish patch before the subterminal line below vein 7.

Hab. Perak, Goping (*Künstler*), 1 ♂ type *muttia*; Singapore (*Ridley*), 1 ♀; Pulo Laut (*Doherty*), 1 ♂; Dutch N. Guinea, Kapaur (*Doherty*), 1 ♂; New Britain, type † ♀ in Coll. Rothschild. *Exp.* 22–26 millim.

6310. Anigræa mediifascia. (Plate CLXXVI. fig. 14.)

Eutelia mediifascia, Hmpsn. Moths Ind. ii. p. 393 (1894).
Eutelia rufula, Hmpsn. A. M. N. H. (7) xvi. p. 385 (1905).

Head and thorax deep rufous; terminal half of patagia and mesothorax greyish ochreous; pectus ochreous; legs brown and ochreous, the tarsi blackish with pale rings; abdomen ochreous dorsally suffused with rufous and grey except at base and with slight dark dorsal marks. Fore wing with the basal half ochreous suffused with violaceous white; an obliquely curved antemedial rufous band; a dark spot in middle of cell; an interrupted curved medial line forming the inner edge of the rufous terminal half; an obscure discoidal spot defined by blackish points and some rufous; some violaceous suffusion before and beyond the postmedial line, which is double, oblique from costa to vein 6, then inwardly oblique and sinuous, a slight dentate pale mark before it below vein 7; subterminal line violaceous grey defined by obscure dark marks before and beyond it, slightly angled outwards at vein 7 and excurved at middle; a fine black terminal line and whitish line at base of cilia, which are fuscous. Hind wing fuscous brown, the interspaces of basal half somewhat paler; a fine dark terminal line and pale line at base of cilia; the underside pale, a discoidal point, curved medial and double postmedial lines.

Hab. Burma, E. Pegu (*Doherty*), type † ♂ in Coll. Rothschild; Andamans, 1 ♀; Perak (*Künstler*), 1 ♀; Singapore (*Ridley*), 4 ♂, 6 ♀ type *rufula*. *Exp.* 22–24 millim.

6311. Anigræa deleta.

Anuga deleta, Hmpsn. Ill. Het. B.M. viii. p. 81, pl. 146. f. 15 (1891); id. Moths Ind. ii. p. 392.

♂. Head, thorax, and abdomen greyish mixed with red-brown and fuscous; palpi dark brown, the basal joint black, a white spot in front of 2nd joint at base; abdomen whitish at base, with slight lateral black bars and spot on 5th segment. Fore wing grey

suffused with pale rufous and fuscous brown; subbasal line represented by double dark striæ from costa; antemedial line with double dark striæ from costa, then very indistinct, oblique below the cell; a small indistinct dark spot at middle of cell and larger discoidal spot; an oblique sinuous line from lower angle of cell to inner margin; some minute dark streaks beyond lower angle of cell; postmedial line double filled in with whitish, bent outwards below costa and with distinct dentate pale mark before it below vein 7, then oblique and almost straight, some white points beyond it on costa; subterminal line slight, greyish, excurved below vein 7 and at middle; a fine black terminal line and whitish line at base of cilia. Hind wing fuscous brown tinged with greyish; traces of a pale line from vein 3 to termen at submedian fold; a fine white line at base of cilia; the underside whitish suffused with brown, a blackish discoidal lunule, indistinct curved medial line, curved postmedial line with minute black streaks on the veins, diffused subterminal shade and patch of fuscous suffusion at middle of termen.

♀. Grey and dark brown with hardly any reddish tinge.

Hab. Sikhim; Madras, Nilgiris (*Hampson*), 2 ♂, 1 ♀ type; Ceylon, Dickoya (*Green*), 1 ♂, 1 ♀, Trincomali (*Yerbury*), 1 ♀; Singapore (*Ridley*), 1 ♀. *Exp.* 26–30 millim.

6312. Anigræa cinctipalpis.

Eutelea cinctipalpis, Wlk. xxxiii. 820 (1865); Hmpsn. Ill. Het. B.M. ix. p. 102, pl. 163. f. 16; id. Moths Ind. ii. p. 392.
Ægilia angulata, Moore, Lep. Atk. p. 146 (1882).

Head, thorax, and abdomen ochreous white mixed with olive-green; palpi with some black at base of 3rd joint and white in front; antennæ fuscous; tegulæ with some black at base; tarsi blackish ringed with white; abdomen with some black at base, dorsal and subdorsal series of slight black bars and a dorsal brown patch on 4th segment, the ventral surface brown. Fore wing ochreous white mixed with olive-green and some fuscous; subbasal line represented by slight blackish points on subcostal and median nervures; antemedial line very indistinct, bent inwards to median nervure; a small black spot in middle of cell and diffused black discoidal spot; an indistinct oblique sinuous line from lower angle of cell to inner margin; postmedial line indistinct, double, bent outwards below costa, then minutely dentate and with slight black streaks before it on the veins, incurved at discal fold and below vein 4, angled outwards at vein 1, some white points beyond it on costa and fuscous suffusion in discal fold; subterminal line ill-defined, fuscous, with slight dark streaks before and beyond it towards costa, incurved at discal fold and oblique below vein 3; a fine blackish terminal line; cilia ochreous white mixed with fuscous. Hind wing fuscous, the interspaces of basal half ochreous white; cilia ochreous white at base, fuscous at tips; the underside ochreous white, the costal area irrorated with brown, the terminal area suffused with fuscous, a blackish discoidal spot and diffused

sinuous medial, postmedial, and subterminal lines, the postmedial line with short black streaks before it on the veins.

Hab. Sikhim; Bhután (*Dudgeon*), 1 ♂; Assam, Nágas; Manipur; Travancore, Pirmád (*Mrs. Imray*), 1 ♂; Ceylon (*Templeton*), 1 ♀ type, Haldamulla (*Mackwood*), 1 ♂. *Exp.* 28–32 millim.

6313. **Anigræa homochroa**, n. sp. (Plate CLXXVI. fig. 15.)

Head, thorax, and abdomen pale rufous mixed with fuscous; abdomen with slight black subdorsal bars and spot on 5th segment. Fore wing ochreous suffused with red-brown and with some dark irroration, the terminal halves of discal and submedian folds and the terminal area suffused with brown; traces of double subbasal striæ from costa; antemedial line represented by slight double striæ from costa and black points on the veins; a slight dark spot at middle of cell and diffused black discoidal spot; traces of a medial line bent inwards to costa and inner margin; postmedial line indistinct, double, bent outwards below costa, then minutely dentate and oblique, some white points beyond it on costa; traces of a waved whitish subterminal line; a fine black terminal line; cilia whitish and fuscous. Hind wing grey suffused with brown; traces of a pale line from vein 3 to termen at submedian fold; a fine whitish line at base of cilia; the underside with traces of medial, postmedial, and subterminal lines.

Hab. Borneo, Sandakan (*Creagh*), 1 ♀; Pulo Laut (*Doherty*), 1 ♂ type; Dutch N. Guinea, Kapaur (*Doherty*), 1 ♀; New Georgia (*Meek*), 1 ♀. *Exp.* 26–28 millim.

*6314. **Anigræa viridata.** (Plate CLXXVI. fig. 16.)

Eutelia viridata, Beth.-Baker, Nov. Zool. xiii. p. 230 (1906).

♀. Head and tegulæ pale yellow-green; palpi white mixed with red-brown at sides; antennæ brown; tegulæ with black patches at base; thorax red-brown mixed with white; pectus white; legs whitish tinged with green and mixed with brown, the tarsi black ringed with white; abdomen white dorsally suffused with red-brown on basal half and on terminal half with yellow and with subbasal series of slight black segmental bars. Fore wing pale yellow-green slightly irrorated with brown; subbasal line represented by a black striga from costa; a small black mark below median nervure followed by a grey patch in and below cell before the double black antemedial line, which is angled outwards below the costa and excurved below the cell; the medial area ochreous white from middle of cell to inner margin with some brown irroration in and beyond the cell and a rufous tinge beyond lower angle of cell; orbicular and reniform white defined by brown, the former a small round spot, the latter bar-shaped; a medial red-brown line excurved from below costa to vein 4 just beyond the reniform, then incurved; postmedial line double, red-brown, the inner line black from vein 3 to inner margin, slightly bent

outwards below the costa, excurved to vein 4, then incurved, some alternating white and black streaks beyond it on costa and a red-brown and whitish patch between vein 3 and submedian fold; a whitish patch from costa to discal fold before the subterminal line, which is whitish defined on inner side by a V-shaped black mark below vein 7, then slightly by blackish to discal fold and by a purplish red patch between veins 5 and 3 and ending on termen below vein 3; a black terminal line with white points at the extremities of the veins; cilia pale brown at base, black at tips. Hind wing with the basal half whitish with slight brown medial line, the terminal half fuscous with a purplish tinge and slight white mark before termen in submedian interspace; a terminal black line with white points at the veins; cilia red-brown mixed with whitish; the underside white suffused with purplish red except on inner area, a slight dark discoidal spot, two minutely waved red-brown postmedial lines and two subterminal lines, a terminal series of slight black lunules.

Hab. Br. N. Guinea, Dinawa (*Pratt*), type † ♀ in Coll. Bethune-Baker. *Exp.* 30 millim.

*6315. Anigræa deletoides. (Plate CLXXVI. fig. 17.)

Eutelia deletoides, Beth.-Baker, Nov. Zool. xiii. p. 230 (1906).

♀. Head and thorax grey-white; palpi tinged with rufous; frons with black bar; antennæ black slightly ringed with white; tegulæ tinged with rufous and edged with black on inner side; tarsi fuscous ringed with white; abdomen grey-white tinged with brown at sides and on ventral surface, with dorsal series of black marks except on terminal segments, subdorsal series of slight V-shaped marks and lateral series of small spots. Fore wing bluish white irrorated with fuscous and tinged with rufous except on terminal area, the costa brighter rufous; subbasal line represented by black points on costa and subcostal and median nervures; antemedial line indistinctly double with black points on the veins, almost obsolete towards costa; the orbicular represented by a small fuscous spot, the reniform by a larger spot; an indistinct diffused medial dark band from lower angle of cell to inner margin; postmedial line indistinct, double, rather diffused, obsolete towards costa, then oblique, sinuous, some white points beyond it on costa; subterminal line white defined on inner side by fuscous suffusion, minutely dentate towards costa, angled inwards in discal fold and incurved below vein 3; some small fuscous spots before the fine black terminal line; cilia chequered fuscous and white. Hind wing fuscous brown, the interspaces of basal half white, a faint bluish white subterminal band between vein 4 and submedian fold and some bluish white on termen in submedian interspace; cilia white with series of black spots from apex to vein 2; the underside white, the costal area and terminal area suffused with fuscous tinged with iron red, a black discoidal lunule, two minutely waved curved

postmedial lines, a diffused subterminal band and slight white marks on termen at apex and submedian interspace.

Hab. Br. N. Guinea, Ekeikei (*Pratt*), type † ♀ in Coll. Bethune-Baker, Aroa R. *Exp.* 26 millim.

6316. Anigræa phæopera, n. sp. (Plate CLXXVI. fig. 18.)

♀. Head and thorax grey-white; palpi red-brown except towards tips; antennæ red-brown; tegulæ red-brown except dorsally; patagia with some olive-green at base, the tips and metathorax red-brown; fore legs red-brown in front; abdomen red-brown, whitish at base, subdorsal red-brown spots on 2nd and 3rd segments, the ventral surface with the 1st two segments fiery red, the 2nd tipped with white. Fore wing violaceous white suffused with red-brown except at base and on costal area to beyond middle, and with slight dark brown irroration; a large dark red-brown apical patch extending down to vein 4; subbasal dark brown points in cell and above vein 1; a red-brown shade on antemedial part of costa; antemedial line represented by a dark brown point on costa and waved line from discal fold to inner margin; medial line represented by a dark point on costa and traces of an oblique line from discal fold to inner margin; some brown suffusion beyond end of cell; postmedial line indistinctly double, curved, the inner line with dark points on the veins; some white points beyond it on costa on the apical patch and traces of a dentate whitish line from the patch to inner margin; subterminal line whitish, curved, very slightly incurved at discal fold; a terminal series of dark striæ. Hind wing dark red-brown with some whitish at base; a whitish line from vein 3 to termen at discal fold where the cilia are whitish; the underside brownish white irrorated with dark brown, the terminal area suffused with brown especially towards apex, a dark subbasal shade from below costa to median nervure, a dark discoidal striga and indistinct curved medial and postmedial lines, a diffused black-brown band from apical part of costa to vein 5 with a white subterminal striga on it at costa.

Hab. Borneo, Sandakan (*Pryer*), 1 ♀ type. *Exp.* 28 millim.

6317. Anigræa siccata. (Plate CLXXVI. fig. 19.)

Eutelia siccata, Hmpsn. A. M. N. H. (7) xvi. p. 386 (1905).

♀. Head and thorax brown mixed with fuscous; tegulæ with black spots; abdomen grey-brown irrorated with fuscous, a dorsal series of small black spots except on basal segments, small black subdorsal spots on 1st three segments and some lateral spots. Fore wing reddish brown tinged with fuscous, the interspaces rather paler giving a streaky appearance; a diffused blackish subbasal mark on inner area; the antemedial area rather pale; an obscure dark discoidal mark; the lines obsolete except double oblique striæ at middle of inner margin representing the postmedial line;

a small white spot on inner margin towards tornus; traces of a subterminal series of small dark spots; a terminal series of small black lunules. Hind wing fuscous brown, the basal area paler; a slight pale mark on termen near tornus; the underside with traces of curved medial and double postmedial lines, the latter with slight black streaks on median nervures, a terminal series of small black lunules, the one near tornus with white mark before it.

Hab. Sierra Leone (*Cator*), 1 ♀ type; S. Nigeria (*Sampson*), 1 ♀. *Exp.* 28 millim.

6318. **Anigræa rubida.**

Anigræa rubida, Wlk. Journ. Linn. Soc., Zool. vi. p. 139 (1862); Swinh. Cat. Het. Mus. Oxon. ii. p. 93, pl. ii. f. 16.
Gadirtha diffundens, Wlk. Journ. Linn. Soc., Zool. vii. p. 161 (1864).
Ægilia obscura, Moore, Lep. Atk. p. 146 (1882); Hmpsn. Moths Ind. i. p. 392.

Head and thorax dark brown tinged with purplish red; abdomen fuscous mixed with purplish red and greyish, the base pale, subdorsal series of slight black bars and subventral series of white points. Fore wing dark brown tinged with purplish red, the costal area usually more fuscous, the discal and submedian folds more grey-brown; traces of a double waved subbasal line from costa to

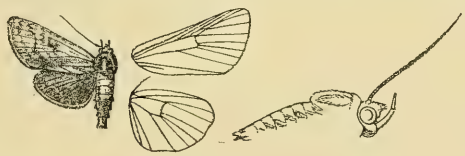


Fig. 37.—*Anigræa rubida*, ♂. ½.

vein 1; an indistinct double waved antemedial line bent inwards to costa and inner margin, a small tuft of raised scales on it in cell and another tuft at upper angle above the obscure discoidal spot; traces of a waved medial line bent inwards to inner margin; an indistinct double postmedial line, bent outwards below costa, slightly incurved at discal fold, incurved below vein 4 and strongly bent inwards to inner margin; subterminal line indistinct, pale, defined below vein 7 by a blackish mark and excurved below vein 7 and at middle; a terminal series of black striæ and fine pale line at base of cilia. Hind wing fuscous brown, a fine pale line at base of cilia; the underside irrorated with greyish and with diffused whitish fasciæ in discal and submedian folds, a dark discoidal lunule and rather diffused curved medial and postmedial lines.

Hab. Sikhim (*Möller*, *Dudgeon*), 4 ♂, 2 ♀; Bhután (*Dudgeon*), 2 ♀; Assam, Nágas; Singapore (*Ridley*), 6 ♂, 5 ♀; Borneo, Sarawak (*Wallace*), 1 ♀ type *obscura*. *Exp.* 22–34 millim. Type† ♂ and type † ♀ *diffundens* in Mus. Oxon.

6319. **Anigræa purpurascens**, n. sp. (Plate CLXXVI. fig. 20.)

♀. Head and thorax deep purple-red; palpi irrorated with white and with white tips; pectus white; legs fuscous and white with some purplish red on fore tibiæ; abdomen reddish ochreous, the 1st two segments purplish red and grey. Fore wing deep purple-red slightly tinged with grey and irrorated with white except on basal area; antemedial line strongly excurved, ochreous white, defined on outer side by black-brown from cell to inner margin; the inner half of medial area suffused with ochreous grey; reniform defined by ochreous grey, somewhat angled inwards on median nervure, an irregular fuscous black streak from it to subterminal line where it forks; postmedial line white and very strongly bent outwards below costa, then ochreous defined on each side by black-brown, oblique and slightly sinuous, some white points beyond it on costa and a wedge-shaped crimson-red mark below vein 2; subterminal line very ill-defined, ochreous, diffused to termen between veins 6 and 4, a small black spot on it below vein 7; a series of black striæ just before termen forming a small spot below vein 3; cilia crimson mixed with fuscous. Hind wing fuscous with a greyish tinge, a slight red streak in terminal part of submedian fold; cilia chequered creamy-white and fuscous; the underside ochreous white suffused with fuscous, a fuscous discoidal spot and curved postmedial line.

Hab. Gold Coast, Kumasi (*Whiteside*), 1 ♀ type. *Exp.* 28 millim.

Genus **ANUGA**.

	Type.
Anuga, Guen. Noct. ii. p. 307 (1852)	*constricta*.
Piada, Wlk. xv. 1746 (1858)	*multiplicans*.
Cæcila, Wlk. xv. 1824 (1858)	*constricta*.
Phumana, Wlk. Journ. Linn. Soc., Zool. vii. p. 164 (1864)	*constricta*.
Spersara, Wlk. Journ. Linn. Soc., Zool. vii. p. 174 (1864)	*constricta*.

Proboscis fully developed; palpi upturned, the 2nd joint typically reaching to middle of frons and very broadly scaled, the 3rd short with tuft of scales in front; frons smooth with ridges of scales at middle and above; eyes large, round; antennæ of male typically longer than fore wing and with very short branches on outer side only from some way beyond base to near middle; thorax clothed chiefly with scales and without distinct crests; tibiæ fringed with long hair; abdomen long with slight dorsal ridges of scales on two basal segments but without crests, the anal segment long and tubular. Fore wing long and narrow, the apex rounded, the termen obliquely curved, crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Antennæ of male of normal length, with very long drooping branches to beyond middle, the apical part ciliated; a large tuft of scales from basal joint.

A. Antennæ of female bipectinate with moderate branches to middle; palpi with the 2nd joint upturned and straight to above vertex of head and with two ridges of hair in front, the 3rd joint long.

6320. Anuga lunulata.

Anuga lunulata, Moore, P. Z. S. 1867, p. 62; Hmpsn. Moths Ind. ii. p. 390.

♀. Head and thorax ochreous white tinged with rufous and mixed with dark brown; palpi with blackish lines at middle and near tips; palpi at base, pectus and legs fuscous brown; abdomen brownish grey with slight black dorsal streaks and subdorsal fasciæ, the ventral surface fuscous brown. Fore wing ochreous white tinged with rufous, the inner area and terminal area except at apex suffused with dark red-brown; subbasal line represented by slight double dark striæ from costa; antemedial line indistinct, double, dentate, angled inwards at vein 1; orbicular and reniform defined by black-brown, the former small, round, the latter with some red-brown in centre; an indistinct diffused brown medial line, oblique below the cell; postmedial line indistinctly double,

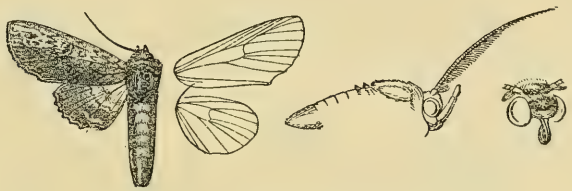


Fig. 38.—*Anuga lunulata*, ♀. ½.

bent outwards below costa, then dentate and produced to black and white points on the veins, incurved below vein 4; subterminal line ochreous white slightly defined on each side by brown from costa to vein 4, then obsolete and only represented by an ochreous mark in submedian interspace; a series of small blackish spots just before termen; cilia chequered dark brown and ochreous. Hind wing dark reddish brown, the basal area whitish; an indistinct sinuous dark postmedial line and ochreous bar from vein 3 to tornus; cilia dark brown mixed with ochreous towards apex; the underside whitish irrorated and tinged with brown, a black discoidal lunule, indistinct curved medial and postmedial lines, the latter with minute black streaks on the veins and a blackish subterminal band from vein 3 to inner margin.

Hab. W. China, Wa-ssu-kow, 1 ♀; Sikhim (*Sadler*, *Möller*), 5 ♀.
Exp. 42–46 millim.

B. Antennæ of female almost simple; palpi in both sexes somewhat curved forward and with tufts of scales from base and extremity of 2nd joint in front, the 3rd joint long in male, shorter and more broadly scaled in female.

6321. Anuga japonica.

Piada japonica, Leech, P. Z. S. 1889, p. 538, pl. 52. f. 6.

Head and thorax blue-grey slightly irrorated with black-brown; palpi with black bars on basal joint; tegulæ with black line near base; pectus in front and fore tarsi at extremities black-brown; abdomen blue-grey tinged with brown, a small tuft of black scales on 4th segment, the ventral surface rufous in male, dark brown with the anal segment rufous streaked with white in female. Fore wing blue-grey tinged with red-brown, the inner area and terminal area except towards apex suffused with red-brown; subbasal line represented by a curved brown striga from costa and black point in cell; antemedial line double, the inner line indistinct and rufous, the outer black, sinuous and slightly angled inwards at vein 1; orbicular and reniform defined by black and with brown centres, the former round, the latter elliptical with black striga in centre; traces of a diffused brown medial line, excurved to median nervure, then incurved; postmedial line double, the inner line

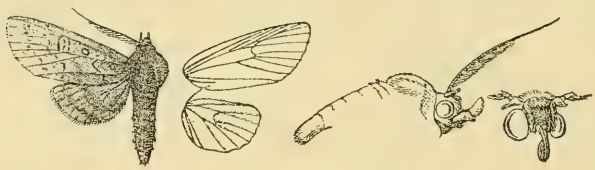


Fig. 39.—*Anuga japonica*, ♂. ½.

black, the outer indistinct, bent outwards below costa, then dentate and produced to blackish and pale points on the veins, incurved at discal fold and below vein 4, some black points beyond it on costa; subterminal line formed of small rufous spots with an oblique blackish shade before it from vein 7 to inner margin, the line slightly incurved below vein 3; a series of small black spots just before termen, almost obsolete towards tornus. Hind wing greyish irrorated and suffused with dark purplish brown, almost wholly suffused in female; an indistinct curved dark postmedial line; a slight ochreous white subterminal line from vein 4 to submedian fold with black spots before it above and below vein 2; a series of black striæ on termen from apex to vein 2; the underside brownish white irrorated with brown, a black discoidal lunule, indistinct curved medial line, postmedial series of black points on the veins, and diffused subterminal line waved towards tornus.

Hab. Japan, Yokohama (*Pryer*), 1 ♂ type, Sendai (*Leech*), 1 ♀. *Exp.* 42–46 millim.

Sect. II. Antennæ of male rather longer than fore wing and with very short branches on outer side only from well beyond base to near middle, the apical part ciliated; palpi with the 2nd joint reaching to middle of frons and very broadly scaled, the 3rd short with tuft of scales in front; the hind tarsi with the 1st joint fringed with hair above.

A. Hind wing with more or less developed ochreous patch on terminal area towards tornus.
  a. Fore wing with the ground-colour ochreous ..... *juventa*.
  b. Fore wing brown suffused with grey ..... *multiplicans*.

B. Hind wing without ochreous patch on terminal area towards tornus.
  a. Fore wing dark brown tinged with grey ..... *constricta*.
  b. Fore wing blue-grey thickly irrorated with black ..... *fida*.

6322. **Anuga juventa.** (Plate CLXXVI. fig. 21.)

Anuga juventa, Swinh. A. M. N. H. (7) ix. p. 171 (1902).

Head, thorax, and abdomen ochreous white mixed with red-brown; palpi black at extremities of 2nd and 3rd joints; frons with black band; vertex of head with two small black spots; shoulders with black stripes; patagia with oblique black bars near base; legs blackish, the spurs and tarsi ringed with white; abdomen with dorsal black spot at base, the ventral surface rufous. Fore wing creamy white slightly irrorated with brown, the inner area purplish fuscous from before antemedial line to postmedial line leaving whitish streaks on the veins; a small blackish spot at base; subbasal line slight, blackish, waved, extending to inner margin; antemedial line indistinctly double, angled outwards below costa, then sinuous; orbicular represented by three blackish points; reniform red-brown defined at sides by black, and with a fuscous streak beyond it; traces of a sinuous medial line; post-medial line double filled in with whitish, bent outwards below costa, then slightly waved and with minute white points beyond it on the veins, incurved below vein 4, a black-brown band beyond it followed by a white line; subterminal line defined on inner side by dentate black marks towards costa, a black-brown patch before and beyond it between veins 5 and 2, then slightly defined on inner side by blackish, waved; some blackish spots before termen towards apex and a terminal series of slight black lunules; cilia intersected with brown towards apex, chequered with brown at middle. Hind wing dark purple-brown with some ochreous white at base; a curved whitish postmedial line almost obsolete on costal half; a rufous patch on termen from vein 4 to tornus with a white line before it; cilia rufous, whitish at tips. Underside purple-brown slightly irrorated with white; fore wing with some rufous on costa; both wings with ochreous discoidal spot with black striga in centre; hind wing with the terminal area ochreous and rufous with brown patch on termen between veins 4 and 2.

Hab. Perak, Goping (*Künstler*), 1 ♀ type; Singapore (*Ridley*), 1 ♂, 1 ♀. *Exp.* 40–44 millim.

6323. Anuga multiplicans.

Piada multiplicans. Wlk. xv. 1747 (1858); Hmpsn. Ill. Het. B.M. viii. p. 18, pl. 143. f. 7; id. Moths Ind. ii. p. 390.

Head, thorax, and abdomen dark brown mixed with grey, the last with ventral white points on basal segments, the extremity ochreous or grey. Fore wing dark brown more or less strongly suffused with bluish grey; subbasal line represented by double dark striæ from costa; antemedial line indistinctly double, the outer line black, waved; a black point in middle of cell; reniform with brownish centre defined by black, narrow and sometimes slightly constricted at middle; traces of a diffused brown medial line, oblique from costa to lower angle of cell, then waved; postmedial line bent outwards below costa, then dentate and produced to black and white points on the veins, slightly incurved at discal fold and oblique below vein 4; postmedial area with some white points on costa and crenulate dark line; subterminal line whitish with dentate black marks before it on the veins, waved, ochreous towards tornus; a terminal series of small black lunules; cilia chequered white and black. Hind wing fuscous brown more or less irrorated with grey on inner half; an indistinct dark postmedial line with ochreous white striæ on its outer edge on inner half; a minutely waved ochreous white subterminal line from below costa to tornus, with ochreous patch beyond it from above vein 2 to tornus; a blackish terminal line from apex to vein 5; cilia chequered blackish and white on apical half, ochreous on inner half; the underside grey irrorated with brown, the tornal area suffused with brown, a black discoidal lunule, minutely waved postmedial and subterminal lines defined on outer side by white, and terminal series of black lunules.

Ab. 1. Hind wing with the patch at tornus whitish and sometimes much reduced.

Hab. C. China, Fokien, Sam-sah (*de la Garde*), 1 ♂; Hong-kong (*Bowring*), 1 ♂; N. India, 1 ♂; Sikhim (*Möller*), 2 ♀; Bombay, Kanara (*Ward*), 2 ♀ type, Pudda R., 1 ♀; Madras, Nilgiris (*Hampson*), 1 ♀; Ceylon, Gampola (*Mackwood*), 1 ♂; Up. Burma, Katha (*Bingham*), 1 ♀; Singapore (*Ridley*), 1 ♂, 1 ♀; Borneo, Sararwak (*Shelford*), 2 ♂, 1 ♀. *Exp.* 38–48 millim.

6324. Anuga constricta.

Anuga constricta, Guen. Noct. ii. p. 308 (1852); Hmpsn. Moths Ind. ii. p. 390.
Cæcila complexa, Wlk. xv. 1825 (1858).
Phumana canescens, Wlk. Journ. Linn. Soc., Zool. vii. p. 164 (1864).
Spersara glaucopoides, Wlk. Journ. Linn. Soc., Zool. vii. p. 175 (1864).
Cremnodes macrocera, Snell. Tijd. v. Ent. xxiii. p. 90, pl. 7. f. 5 (1880).

♂. Head and thorax dark red-brown slightly tinged with grey; pectus greyer; abdomen grey-brown, the ventral surface dark brown. Fore wing dark reddish brown slightly tinged with grey;

subbasal line represented by indistinct double dark striæ from costa; antemedial line indistinctly double, waved; a black point in middle of cell; reniform red-brown defined by black, strongly on inner side, elliptical; an indistinct diffused sinuous medial line; postmedial line black, bent outwards below costa, then dentate and produced to white points on the veins, incurved below vein 4; a subterminal series of white points defined by blackish; a terminal series of small blackish lunules; cilia with a fine pale line at base.

Fig. 40.—*Anuga constricta*, ♂. ½.

Hind wing fuscous brown with a slight greyish tinge; postmedial black and white points on veins 5 to 2; a minutely waved ochreous white line from vein 5 to tornus, defined on inner side by black striæ between veins 5 and 2; a series of black points just before termen defined on inner side by white scales; the underside grey irrorated with brown, the tornal area suffused with brown, a large black discoidal spot defined by white, indistinct medial line, double postmedial line, and rather diffused subterminal line.

♀. Greyer.

Hab. Bengal, Calcutta, 1 ♀; Bombay, 1 ♂; Madras, Nilgiris (*Hampson*), 2 ♂; Ceylon, Gampola (*Mackwood*), 1 ♀; Andamans, 1 ♂; Singapore (*Ridley*), 12 ♂, 8 ♀; Sumatra, 1 ♀; Borneo, Sarawak (*Wallace, Shelford*), 1 ♂, 2 ♀; Java (*Horsfield*), 1 ♀ type; Celebes. *Exp.* 30–38 millim.

Larva. Semper, Reisen Phil., Schmett. ii. p. 532, pl. R. ff. 1, 3.

Green with black dorsal stripe with green dorsal streaks on it on somites 2–9, the stripe expanding into diamond-shaped patches on somites 2, 3, 8; stigmata reddish, 4 pairs of prolegs. Food-plant: *Semecarpus*, 12.

Pupa in a brown cocoon.

6325. Anuga fida. (Plate CLXXVI. fig. 22.)

Anuga fida, Swinh. A. M. N. H. (7) ix. p. 170 (1902).

♀. Head, thorax, and abdomen bluish white mixed with black; palpi black with a few white scales; tarsi ringed with white; abdomen with dorsal series of slight black spots and subdorsal dentate line, the ventral surface blackish with series of small white spots. Fore wing bluish white, thickly irrorated with black;

subbasal line black, waved, interrupted, defined on inner side by white towards costa; antemedial line double, black filled in with white towards costa, the black on inner side expanding on costa to subbasal line; a black point in middle of cell; reniform with black bar in middle and whitish annulus defined by black; medial line forming a diffused black patch on costa, dentate below the cell; postmedial line double, black filled in with white towards costa, bent outwards below costa, then strongly dentate, oblique below vein 4, some black suffusion beyond it; postmedial area with some white points on costa and a strongly dentate black line; subterminal line whitish, defined on inner side by wedge-shaped black marks and on outer slightly by black, waved; a series of small black lunules on apical half of termen, the inner half of terminal area almost wholly black; cilia chequered black and white. Hind wing grey, the inner half suffused with black; a minutely waved white postmedial line from discal fold to inner margin with black spots before and beyond it below vein 2; a waved white subterminal line from vein 7 to tornus, double between veins 4 and 2; cilia with series of small white spots at base; the underside white thickly irrorated with black, the terminal area suffused with black below vein 5, a black discoidal spot and medial line, postmedial line black defined on outer side by white, minutely waved, subterminal line white minutely waved, forming a bar at tornus.

Hab. Perak, Goping (*Künstler*), 1 ♀ type; Borneo, 2 ♀. *Exp.* 44–46 millim.

Genus **AON.**

Type.

Aon, Neum. Ent. News, Philad. iii. p. 258 (1893) ..... *noctuiformis.*

Proboscis absent; palpi obliquely upturned, the 2nd joint reaching about to vertex of head and moderately fringed with hair, the third porrect; frons smooth, with large tuft of hair; eyes large, round; antennæ of male bipectinate with long branches to apex; prothorax without crests, metathorax with spreading crest; tibiæ moderately fringed with hair; abdomen with some rough hair at base but without crests. Fore wing long and narrow, the apex rectangular, the termen obliquely curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 stalked; 5 fully developed from just above angle of cell; 6, 7 stalked; 8 anastomosing with the cell near base only.

6326. **Aon noctuiformis.**

Aon noctuiformis, Neum. Ent. News, Philad. iii. p. 258 (1893); Dyar, Cat. Lep. N. Am. p. 195.

♂. Head and thorax grey tinged with rufous, the thorax with black bands behind the tegulæ and at extremity of metathorax; pectus and legs with brown mixed, the tarsi blackish ringed with white; abdomen browish grey irrorated with blackish, the hair at base brown. Fore wing grey striated with brown and irrorated with a few large black scales, the cell and discal fold towards termen white, the terminal area below the cell tinged with rufous,

the lines absent; a subbasal black striga below the cell; a black discoidal spot; a more prominent postmedial patch of black irroration between veins 5 and 3. Hind wing white, the margins

Fig. 41.—*Aon noctuiformis*, ♂. ½.

slightly tinged with brown, a slight blackish discoidal spot; the underside irrorated with a few brown scales, a black discoidal spot.

Hab. U.S.A., Texas, 1 ♂. *Exp.* 34 millim.

Genus **PÆCTES.**

	Type.
Pæctes, Hübn. Verz. p. 248 (1827)	*pygmæa.*
Ingura, Guen. Noct. ii. p 309 (1852)	*lunodes.*
Orthoclostera, Butl. Trans. Ent. Soc. 1878, p. 70	*devincta.*
Callingura, Butl. Entom. xxvii. p. 284 (1894)	*cristatrix.*

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching to above vertex of head and fringed with hair in front and behind towards extremity, the 3rd moderate; frons smooth, with tuft of hair above; eyes large, round; antennæ of male typically bipectinate with long branches to two-thirds length, the apical part ciliated; thorax clothed almost entirely with scales, the prothorax with spreading crest, the metathorax without crest; tibiæ moderately fringed with hair; abdomen with dorsal ridges of scales on basal segments and lateral tufts of hair but without crests. Fore wing with the apex rounded, the termen evenly curved, crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. (*Callingura*). Antennæ of male bipectinate with long stiff branches to two-thirds length, the apical third ciliated; fore tibiæ with tuft of long hair from femero-tibial joint. [old world]

A. Fore wing with white fascia on median nervure defined below by the black antemedial line which terminates at base on vein 1 ..... *cebeæ.*

B. Fore wing with oblique white mark below base of cell, the antemedial line angled inwards at vein 1 and outwards to inner margin.

a. Fore wing with the antemedial line angled inwards on vein 1 to near base ..... *psaliphora.*

b. Fore wing with the antemedial line much less acutely angled inwards on vein 1.

a^1. Fore wing with distinct white band before postmedial line ..... *cristatrix.*

b^1. Fore wing without white band before postmedial line.

a^2. Fore wing with the costal area to near apex and the medial area ochreous ..... *leucotrigona.*

b^2. Fore wing with the costal and medial areas not ochreous.
a^3. Fore wing blue-grey ..... *cyanodes.*
b^3. Fore wing ochreous and grey mostly suffused with brown ..... *poliotis.*
C. Fore wing without oblique white mark below base of cell.
a. Fore wing ochreous suffused with red-brown ..... *costistrigata.*
b. Fore wing white irrorated with black.
a^1. Fore wing with the antemedial line oblique below the cell ..... *pratti.*
b^1. Fore wing with the antemedial line incurved below the cell ..... *fabrica.*

6327. Pæctes cebeæ. (Plate CLXXVI. fig. 23.)

Callingura kebeæ, Beth.-Baker, Nov. Zool. xiii. p. 227 (1906).

♂. Head white irrorated with brown; antennæ red-brown; tegulæ white with brown medial line and ochreous tips; thorax dark brown mixed with some grey, the patagia ochreous with white and black-brown streaks on upper edge; pectus and legs ochreous white mixed with brown; abdomen ochreous whitish suffused with brown leaving whitish subdorsal streaks. Fore wing olive-yellow suffused with brown and irrorated with black, the terminal area greyer, a creamy white fascia from base to the produced part of postmedial line, the terminal half of costal area creamy white; an oblique black streak below the white fascia from median nervure before middle to base at vein 1; postmedial line double, black, obsolescent towards costa and filled in with white below the cell, very oblique from costa to vein 6 near termen, excurved to vein 4, then very strongly incurved to lower angle of cell and inner margin, an oblique ochreous band before it from cell to inner margin with a brown line on it, some white points beyond it on costa; traces of a curved dark subterminal line crossed by a slight dark streak below vein 3; a fine blackish line just before termen and a fine terminal line; cilia whitish with a fine dark line through them. Hind wing whitish suffused with brown especially on terminal area, the veins brown; a whitish subterminal shade; the underside white irrorated with brown, a double postmedial series of black points on the veins, faint dark subterminal shade and terminal series of points.

♀. Abdomen bluish white with small black dorsal spots on 2nd and 3rd segments; fore wing darker, the costal area suffused with brown to apex; hind wing with the terminal area darker.

Hab. Br. N. Guinea, Dinawa (*Pratt*), 1 ♂, Ekeikei (*Pratt*), 1 ♀, Mt. Kebea (*Pratt*), 1 ♀. *Exp.* 32 millim.

6328. Pæctes psaliphora, n. sp. (Plate CLXXVI. fig. 24.)

Head, thorax, and abdomen red-brown mixed with bluish white, the tegulæ with medial red-brown band and bluish white tips; tarsi brown ringed with white; abdomen with the ventral surface

ochreous and with sublateral series of black points. Fore wing dark iron-brown suffused in parts with blue-grey especially before the postmedial line except towards costa and on terminal area; an oblique black line from median nervure before middle to vein 1 near base, then angled outwards to inner margin, a white fascia above it below the cell; postmedial line double, obsolescent towards costa, then the outer line black, the inner indistinct, filled in with white below the cell, very oblique from costa to vein 6 near termen, excurved to vein 4, then very strongly incurved to just beyond lower angle of cell and inner margin, a pinkish streak before it below the costal area and some white points below it on costa; traces of a waved grey subterminal line with whitish patch on it below vein 3 and ochreous and pinkish patch above vein 1; a slight dark line just before termen reduced to points towards apex; a fine dark terminal line and whitish line at base of cilia. Hind wing fuscous brown, the interspaces of basal area whitish; a diffused whitish bar from vein 3 to tornus; a series of dark striæ just before termen; cilia grey with a dark line through them; the underside whitish suffused with rufous and irrorated with blackish, an indistinct double postmedial series of black points on the veins, diffused subterminal band and series of dark points before termen.

Hab. Java, Arjuno (*Doherty*), 1 ♀; Br. N. Guinea, Dinawa (*Pratt*), 1 ♂, Mt. Kebea (*Pratt*), 1 ♂ type, Ekeikei (*Pratt*), 1 ♀. *Exp.* 32–36 millim.

6329. Pæctes cristatrix.

Ingura cristatrix, Guen. Noct. ii. p. 313, pl. 14. f. 10 (1852); Hmpsn. Moths Ind. ii. p. 389; Smith, Cat. Noct. N. Am. p. 241.

Head, thorax, and abdomen reddish brown mixed with grey-white; tegulæ with brown bands at base and near tips; patagia with oblique dark bar; pectus whitish, the tarsi brown ringed with white; abdomen ochreous white at base and with blackish dorsal points on 2nd and 3rd segments, the ventral surface ochreous white

Fig. 42.—*Pæctes cristatrix*, ♂. ½.

streaked with brown. Fore wing bluish grey suffused with brown, the costal area with slight whitish streaks on the veins, the terminal area greyer; an oblique black line from median nervure before middle to vein 1, then erect to inner margin, a wedge-shaped white patch before it below the cell; a white band before the postmedial line from its produced portion to inner margin, with some pinkish

on upper edge, a dark point at lower angle of cell and fine line from lower angle to inner margin; postmedial line double, black filled in with whitish, very oblique from costa to vein 7 towards termen, excurved to vein 5, then very strongly incurved to beyond lower angle of cell and inner margin, some whitish points beyond it on costa; subterminal line blackish, obsolescent towards costa, dentate and defined by whitish on outer side; a fine black terminal line; cilia blue-grey with a brown line through them. Hind wing white, the veins and terminal area suffused with brown; some white suffusion on termen between vein 3 and tornus and a series of dark striæ just before termen slightly defined by white and fine terminal line; cilia white with a dark line through them; the underside white irrorated with brown, a blackish discoidal spot, double postmedial series of slight points on the veins, and diffused subterminal line.

Hab. Madras, Nilgiris (*Hampson*), 1 ♀; Andamans, 2 ♂; Java (*Horsfield*), 1 ♂ type; Br. N. Guinea, Mt. Kebea (*Pratt*), 1 ♂; Friendly Is., Vavao, 1 ♂. *Exp.* 30–36 millim.

6330. **Pæctes leucotrigona.** (Plate CLXXVI. fig. 25.)

Ingura leucotrigona, Hmpsn. A. M. N. H. (7) xvi. p. 371 (1905).

♀. Head and tegulæ ochreous tinged with rufous; thorax rufous mixed with grey; pectus and legs ochreous tinged with rufous; abdomen brown suffused with grey, the anal tuft and ventral surface whitish tinged with rufous. Fore wing ochreous tinged with rufous; the base rufous suffused with grey; a triangular white subbasal patch between the cell and vein 1 before a diffused rufous band from cell to inner margin with incurved red-brown line on its inner edge; a red-brown line from below costa beyond middle, oblique to near termen below vein 7, below vein 5 strongly incurved, then obliquely sinuous to inner margin, the area beyond it dark brown suffused with grey; a series of black striæ before termen. Hind wing whitish tinged with brown, the terminal half suffused with dark brown; a diffused grey subterminal line excurved below costa; a series of dark points just before termen and striæ on termen; the underside yellowish irrorated with red-brown, a brown discoidal lunule, an ill-defined medial line, an indistinct waved postmedial line with brown suffusion between it and the diffused grey subterminal line.

Hab. Borneo, Kuching (*Shelford*), 1 ♀ type. *Exp.* 38 millim.

6331. **Pæctes cyanodes.** (Plate CLXXVI. fig. 26.)

Ingura cyanodes, Turner, Pr. Linn. Soc. N. S. W. xxvii. p. 87 (1902).

♀. Palpi grey irrorated with fuscous; head brown; tegulæ ochreous with two brown bands and the extremity bluish grey; thorax blue-grey mixed with pale brown; pectus and legs ochreous and dark brown; abdomen grey mixed with pale brown, the small

dorsal crests dark. Fore wing blue-grey; the costal area suffused with brown; an antemedial black line from cell to inner margin, angled inwards on vein 1 and with whitish patch on its inner edge below the cell; a black point at lower angle of cell; an indistinct oblique line from vein 5 to inner margin; the postmedial line double, the inner line indistinct, very oblique from costa to vein 7, excurved to vein 5, then strongly incurved and oblique to inner margin, its medial part strong and black and with some brown and ochreous suffusion on each side of it; an indistinct, diffused, waved subterminal line; a line just before termen reduced to points towards apex and a fine terminal line. Hind wing whitish suffused with brown and with the veins blackish; the termen bluish white expanding into a patch at tornus and with series of black striæ just before and on termen; cilia whitish with some fuscous spots; the underside whitish irrorated with fuscous, a black discoidal spot, an indistinct medial line, two postmedial series of points, and a sinuous waved subterminal line.

Hab. Queensland, Townsville (*Dodd*), type † ♀ in Coll. Turner, Thursday I. (*Turner*), 1 ♀. *Exp.* 34 millim.

6332. **Pæctes poliotis.** (Plate CLXXVI. fig. 27.)

Ingura poliotis, Hmpsn. A. M. N. H. (7) xvi. p. 371 (1905).

♂. Head and thorax rufous mixed with grey and fuscous; abdomen rufous tinged with grey and irrorated with black, slight dorsal black marks on the two medial segments. Fore wing with the basal and costal areas ochreous suffused with rufous and irrorated with fuscous, the rest of wing grey suffused in parts with rufous; a fine strongly incurved antemedial line from submedian fold to inner margin, with some diffused brown beyond it; postmedial line indistinct and very oblique from costa to below vein 7, then prominent, blackish, strongly incurved below vein 5 and oblique to inner margin, with traces of a dentate line beyond it; a grey patch on apical part of terminal area; a series of black striæ before termen; some white points on costa towards apex. Hind wing fuscous brown, the basal and inner areas rather paler; a diffused pale subterminal mark towards tornus; the underside grey irrorated with black and suffused with red towards apex, a discoidal bar, slight sinuous postmedial line, and diffused subterminal band.

♀. Fore wing with the incurved postmedial line less distinct, the dentate line more prominent; an indistinct waved subterminal line angled inwards in submedian fold.

Hab. Singapore (*Ridley*), 2 ♂, 4 ♀ type. *Exp.* 26–30 millim.

*6333. **Pæctes costistrigata.** (Plate CLXXVI. fig. 28.)

Ingura costistrigata, Beth.-Baker, Nov. Zool. xiii. p. 226 (1906).

♂. Head and thorax red-brown mixed with some ochreous;

palpi irrorated with black; frons with slight lateral dark bars; tegulæ with fuscous lines near base and at middle and dark brown tips; patagia suffused with blackish; pectus with white mixed; fore legs streaked with black; abdomen fuscous black with some white and rufous at base. Fore wing ochreous suffused with red-brown, the base obliquely black with a leaden gloss, the costal area tinged with greyish and slightly irrorated with black, the apex suffused with bluish white; some pale yellow on outer edge of the black basal area from cell to inner margin, followed by the faint rufous antemedial line arising at subcostal nervure and incurved in submedian interspace; orbicular represented by a rufous point, the reniform by a slight rufous lunule; postmedial line double, arising at vein 7, acutely angled outwards at vein 5, then strongly incurved, excurved below vein 3 and submedian fold, with a faint line before it angled outwards below veins 6 and 5, then oblique; some slight whitish points on costa towards apex; subterminal line whitish from costa to vein 7, then yellowish slightly defined by brown on inner side, below vein 5 excurved at the veins and angled inwards in the interspaces; a series of black points before termen except at apex; a fine brown terminal line; cilia dark brown with a fine pale line at base. Hind wing whitish suffused with dark brown except on basal and costal areas and inner area to beyond middle, the terminal area yellowish tinged with rufous and with whitish patch near tornus; some black striæ with rufous between them on inner margin towards tornus; a punctiform black terminal line; cilia brown with white line at base and white patch below submedian fold; the underside white, the costal area and terminal half to vein 2 tinged with rufous and irrorated with brown, a slight blackish discoidal lunule, waved medial line incurved below vein 5, waved postmedial line oblique below vein 5, diffused waved subterminal line, series of black points just before termen, and fine black terminal line.

Hab. Br. N. Guinea, Dinawa (*Pratt*), type † ♂ in Coll. Bethune-Baker. *Exp.* 34 millim.

6334. Pæctes pratti. (Plate CLXXVI. fig. 29.)

Ingura pratti, Beth.-Baker, Nov. Zool. xiii. p. 226 (1906).

♂. Head and thorax white mixed with some red-brown and irrorated with black; frons with black bar above; tegulæ with slight medial brown line; pro- and metathoracic crests tipped with blackish; tarsi with blackish bands; abdomen with the 3rd and 4th segments and two terminal segments dorsally suffused with brown, with dorsal series of small black spots and subventral series of points. Fore wing white irrorated with black, some rufous suffusion at base of costa, an oblique black bar from base of costa, and blackish subbasal mark on vein 1; antemedial line black, double towards costa, slightly incurved at subcostal nervure and excurved at median nervure, then oblique, some rufous suffusion beyond it above vein 1;

a fine V-shaped black mark on discocellulars; medial line slight, oblique from costa to discal fold well beyond the cell, then bent inwards to lower angle and dentate to inner margin; postmedial line double, black, very oblique from costa to vein 5, then strongly incurved and slightly angled inwards at submedian fold, some white points with black streaks between them beyond it on costa; some rufous suffusion on terminal area between veins 5 and 1 and a series of black striæ just before termen; a fine brown terminal line; cilia brown with a fine white line at base. Hind wing grey suffused with brown, a diffused white bar from vein 3 to tornus, the inner margin white irrorated with black and with black postmedial striga and two towards tornus; cilia white with a dark line through them; the underside white irrorated with brown, the costal area tinged with rufous and the terminal area with brown, a blackish discoidal spot, medial line excurved beyond the cell, double postmedial series of points, diffused subterminal line, and series of small spots before termen.

Hab. Br. N. Guinea, Dinawa (*Pratt*), 2 ♂, Mt. Kebea (*Pratt*), 1 ♂. *Exp.* 34–36 millim.

6335. Pæctes fabrica. (Plate CLXXVI. fig. 30.)

Anuga fabrica, Swinh. A. M. N. H. (7) ix. p. 171 (1902).

♀. Head, tegulæ, and patagia grey mixed with some dark brown; vertex of thorax dark purplish brown with a few grey scales; palpi tinged with purplish red at sides; pectus ochreous mixed with some brown; legs grey irrorated with brown; abdomen grey mixed with brown, a dorsal series of small black spots. Fore wing white irrorated with purple-brown, the inner area with purple-brown patches at base and beyond postmedial line; antemedial line with two brown striæ from costa, almost obsolete to median nervure, black and incurved below the cell, double at inner margin; two slight discoidal points on an undefined white patch; medial line represented by a dark striga from costa, waved from cell to inner margin; postmedial line double, bent outwards and almost obsolete below costa, obliquely bent outwards, the outer line being strong and black to vein 4 towards termen, then bent inwards to just beyond lower angle of cell, and oblique and slightly waved to inner margin towards which it is distinct and black; subterminal line faint, white, defined on inner side by purple-brown and on outer side also at apex, incurved and dentate below vein 4; a series of black points before termen and a fine black terminal line; cilia purple-brown at tips. Hind wing fuscous brown with some greyish in cell and on inner area; a dark postmedial striga at inner margin and two towards tornus; a greyish line from vein 5 to tornus and a series of blackish points before termen with some grey beyond them; a fine black terminal line; cilia grey at base, purple-brown at tips; the underside white irrorated with brown, a sinuous black medial line, indistinct double waved postmedial line with

minute black streaks before it on the veins, diffused subterminal line and series of black points before termen.

Hab. Perak, Goping (*Künstler*), 1 ♀ type. *Exp.* 38 millim.

Sect. II. Antennæ of male bipectinate with stiff branches dilated at extremity to two-thirds length, the branches on outer side very short, the apical part ciliated; fore tibiæ with tuft of long hair from femero-tibial joint.

6336. Pæctes subapicalis.

Abrostola subapicalis, Wlk. xii. 883 (1837); Hmpsn. Moths Ind. ii. p. 389.
Ingura recurrens, Wlk. xv. 1779 (1858).

♂. Head, thorax, and abdomen brown mixed with grey and fuscous; palpi irrorated with black at sides; neck with black ring, tegulæ with darker lines at middle and sides; pectus whitish; abdomen whitish at base and with fine black segmental lines on basal segments. Fore wing grey suffused with fuscous brown leaving a curved greyish shade from apex to middle of inner margin; subbasal line represented by a brown striga from costa and three minute streaks at base of cell; antemedial line double, black, less distinct on costal half, slightly angled outwards below costa, excurved to submedian fold, then incurved and the inner line with a slight streak before it on vein 1, a dark patch beyond it on inner area; orbicular and reniform indistinct, small, grey, the former round, the latter with red-brown striga in centre; a slight dark

Fig. 43.—*Pæctes subapicalis*, ♂. ½.

medial line, bent outwards below costa, then oblique, waved; postmedial line double, black, oblique from costa to vein 5 near postmedial line, where it is acutely angled, then strongly incurved, some white points beyond it on costa; subterminal line indistinct, greyish, waved below vein 5; a fine crenulate black line just before termen and a fine terminal line, the apex suffused with whitish; cilia with a fine waved dark line through them. Hind wing semihyaline whitish, the veins, and terminal area broadly, brown; a whitish bar from vein 3 to tornus; a slight crenulate dark line just before termen and a fine terminal line; cilia white with a waved blackish line through them; the underside white irrorated with brown especially on terminal area, a small dark discoidal spot, curved postmedial line with series of black points before it, a series of points just before termen.

♀. Darker: fore wing uniformly suffused with brown, the pale shade indistinct or obsolete.

Hab. Punjab (*James*), 1 ♂, 1 ♀, type and type *recurrens*, Kulu, Sultanpur (*G. Young*) 1 ♂, Simla (*Swinhoe*), 2 ♂, Dharmsála (*Hocking*) 3 ♂, 5 ♀, Kasauli (*Barrow*), 1 ♂, Allahabad, 2 ♀, Jubbulpur (*F. Butler*), 2 ♂, 3 ♀, Manpuri, 2 ♂, 1 ♀, Deyra Dhun, 1 ♀; Sikhim (*Möller*), 1 ♂; Assam, Khásis, 1 ♂, 1 ♀; Bengal, Calcutta, 1 ♀; Bombay, Karáchi. *Exp.* 28–34 millim.

Sect. III. Antennæ of male bipectinate with long drooping branches to two-thirds length, the apical part ciliated.

A. (*Orthoclostera*). Fore wing of male with the tornus slightly dilated and lobed.

6337. Pæctes devincta.

Abrostola devincta, Wlk. xv. 1781 (1858).
Orthoclostera peculiaris, Butl. Trans. Ent. Soc. 1878, p. 70.
Ingura murina, Druce, Biol. Centr.-Am., Het. i. p. 326, pl. 30. f. 8 (1889).

Head and thorax pale rufous tinged with greyish; tarsi fuscous ringed with white; abdomen rufous tinged with greyish fuscous, the ventral surface whitish irrorated with brown and with slight subventral dark streaks and points. Fore wing rufous with some purplish fuscous at base, on costal area, beyond postmedial line and on middle of terminal area, an oblique grey-white shade from apex to middle of inner margin; antemedial line indistinct, double, waved; a white point in middle of cell and two rufous discoidal points; an oblique dark shade from lower angle of cell to inner

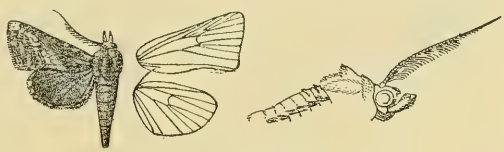


Fig. 44.—*Pæctes devincta*, ♂. ½.

margin; a slight dark medial line strongly bent outwards to beyond upper angle of cell, then oblique, minutely dentate and closely approximated to the postmedial line, which is double, red, bent outwards below costa, oblique to vein 6 where it is obtusely angled outwards, then incurved and slightly angled outwards at vein 4, some white points beyond it on costa and slight black streaks above and below vein 6; subterminal line indistinct, greyish, irregularly waved; a series of black striæ just before termen and a fine terminal line; cilia with two fine dark lines through them. Hind wing fuscous brown, the interspaces of basal half whitish, the veins with dark streaks; a postmedial black striga at inner margin and two towards tornus; cilia white with series of brown spots; the underside whitish, the terminal area suffused with brown, a sinuous dark medial line and double postmedial series of minute streaks on the veins.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♂, 1 ♀; Guatemala, Volcan de Atitlan (*Champion*), 1 ♂ type *murina*; Panama, Chiriqui (*Champion*), 1 ♀, Godman-Salvin Coll., La Chorrera (*Dolby-Tyler*), 3 ♂, 1 ♀; Colombia, Jiminez, 1 ♀; Venezuela (*Dyson*), 1 ♂ type; Br. Guiana (*Roberts*), 1 ♀; Fr. Guiana, St. Laurent Maroni (*Le Moult*), 1 ♀; Brazil, Amazons, Rio Negro (*Trail*), 1 ♂ type *peculiaris*, São Paulo (*D. Jones*), 1 ♀. *Exp.* 26–30 millim.

B. Hind wing of male with the upper extremity of cell rather produced, veins 6, 7 separating widely with a triangular fovea between their extremities on underside.

6338. Pæctes fovifera, n. sp.

♂. Head and thorax brown mixed with grey; fore tarsi ringed with white; pectus, mid and hind legs ochreous white; abdomen brown mixed with grey and with slight whitish dorsal bars, the ventral surface ochreous white. Fore wing red-brown extending on costa to near apex and on inner margin to before middle, its outer edge very oblique; a small subbasal greenish spot below costa and large patches below the cell and above inner margin; a small grey-white spot in end of cell and point at upper angle; the terminal half grey-white suffused with brown towards termen and with some

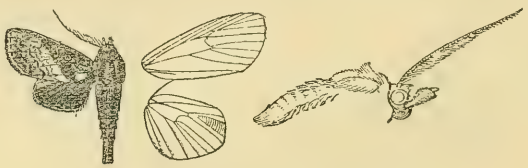


Fig. 45.—*Pæctes fovifera*, ♂. ½.

pale sap-green suffusion on postmedial area below costa and on inner area; the postmedial area with traces of two double minutely waved obliquely curved lines; some white points on costa towards apex; traces of a slightly waved whitish subterminal line somewhat excurved below vein 7 and at middle; a series of black striæ just before termen. Hind wing dark brown, the fovea whitish, the inner margin greyish with a dark striga at tornus; cilia whitish at tips towards tornus; the underside greyer with traces of dark line from lower of cell to inner margin and double sinuous postmedial line.

♀. Fore wing with the pale postmedial area wholly tinged with green.

Hab. Panama, La Chorrera (*Dolby-Tyler*) 1 ♀; Fr. Guiana, St. Laurent Maroni (*Le Moult*), 1 ♀; type ♂ in Coll. Dognin. *Exp.* 26 millim.

C. (*Pæctes*). Fore and hind wings of male normal.
a. Fore wing with the postmedial line strongly excurved or angled outwards below costa, then incurved.
a^1. Fore wing with the postmedial line evenly incurved below the angle and not slightly angled or excurved at vein 4.
a^2. Fore wing with prominent dark lunulate patch on terminal area.
a^3. Fore wing with the antemedial line angled inwards on vein 1 to near base.
a^4. Fore wing with white fascia tinged with pink below costa ..... *oculatrix.*
b^4. Fore wing without white fascia tinged with pink below costa .... *semicircularis.*
b^3. Fore wing with the antemedial line excurved and not angled inwards at vein 1 ..... *chrysoplaga.*
c^3. Fore wing with the antemedial line oblique and not angled inwards on vein 1 ..... *circularis.*
b^2. Fore wing without prominent dark lunulate patch on terminal area.
a^3. Fore wing with the subcostal area pale and faintly tinged with red ..... *curvilinea.*
b^3. Fore wing with the subcostal area concolorous.
a^4. Fore wing almost wholly suffused with dark brown; hind wing black-brown ..... *flabella.*
b^4. Fore wing grey slightly suffused with brown; hind wing grey suffused with brown ..... *pygmæa.*
b^1 Fore wing with the postmedial line slightly angled or excurved at vein 4.
a^2. Fore wing with the postmedial line acutely angled outwards below costa.
a^3. Hind wing white, the terminal area suffused with brown ..... *declinata.*
b^3. Hind wing wholly tinged with brown.
a^4. Fore wing with curved white shade from apex to middle of inner margin ..... *acutangula.*
b^4. Fore wing without curved white shade from apex to middle of inner margin ... *abrostoloides.*
b^2. Fore wing with the postmedial line less and more obtusely angled outwards below costa.
a^3. Fore wing with subapical black spot above vein 6 ..... *fuscescens.*
b^3. Fore wing with subapical black streaks above and below vein 6.
a^4. Fore wing without curved pale shade from apex to middle of inner margin ..... *delineata.*
b^4. Fore wing with more or less distinct curved pale shade from apex to middle of inner margin.
a^5. Fore wing without oblique dark shade before the pale shade from cell to inner margin.
a^6. Fore wing without prominent black marks on antemedial line above inner margin and on postmedial line below its angle ..... *lunodes.*
b^6. Fore wing with prominent black marks on antemedial line above inner margin and on postmedial line below its angle ..... *arcigera.*

b^5. Fore wing with oblique dark shade before the pale shade from cell to inner margin ..... *obrotunda.*
c^3. Fore wing with rather diffused curved black mark beyond postmedial line below its angle *nubifera.*
b. Fore wing with the postmedial line slightly angled outwards at vein 6 and incurved or oblique below vein 4.
a^1. Fore wing with the ground-colour brown.
a^2. Fore wing not mostly suffused with fuscous.
a^3. Fore wing with green bands before the antemedial and beyond the postmedial line..... *chlorophora.*
b^3. Fore wing without green bands.
a^4. Fore wing with the postmedial line not excurved at submedian fold ..... *phæoplaga.*
b^4. Fore wing with the postmedial line excurved at submedian fold ..... *eumicta.*
b^2. Fore wing largely suffused with fuscous.
a^3. Fore wing without crimson mark at tornus.
a^4. Fore wing without green fascia on middle of inner margin..... *nyctichroma.*
b^4. Fore wing with green fascia on middle of inner margin ..... *endochlora.*
b^3. Fore wing with crimson mark at tornus..... *hæmatosema.*
b^1. Fore wing with the ground-colour grey-white.
a^2. Fore wing with blackish patch beyond the subterminal line at apex.
a^3. Fore wing suffused with olive-yellow ..... *glauca.*
b^3. Fore wing pale purplish grey ..... *polia.*
b^2. Fore wing with dark mark on subterminal line before apex.
a^3. Fore wing with black streaks above and below vein 6 beyond the postmedial line ..... *griseifusa.*
b^3. Fore wing with black streak below vein 6 beyond the postmedial line.
a^4. Fore wing with the medial area and postmedial costal area white tinged with green ..... *canofusa.*
b^4. Fore wing with the medial area and postmedial costal area grey tinged with purplish red ..... *areusa.*
c^3 Fore wing without black streaks beyond the postmedial line.
a^4. Fore wing largely suffused with fuscous brown ..... *sabulosa.*
b^4. Fore wing not suffused with fuscous brown *albescens.*

6339. **Pæctes oculatrix.** (Plate CLXXVI. fig. 31.)

Ingura oculatrix, Guen. Noct. ii. p. 313 (1852); Smith, Cat. Noct. N. Am. p. 241.

Head and thorax grey mixed with reddish brown and fuscous; tegulæ with brown line before tips which are white; tarsi fuscous ringed with white; abdomen reddish brown, greyer towards base and with small dorsal brown spots on three basal segments, the ventral surface whitish with subventral series of small dark brown spots on medial segments. Fore wing grey suffused with dark iron-brown, a purplish pink fascia below costa; a white patch on basal

area in and below the cell, the median nervure on it streaked with pink, bounded by the black antemedial line, which arises at discal fold, oblique below cell and angled inwards at vein 1 almost to base; medial line almost obsolete on costal half, angled inwards below costa and outwards at vein 6, then oblique to lower angle of cell and double and incurved to inner margin; some minute white points on apical part of costa; subterminal white streaks on veins 8, 7, 6, and black streaks below veins 7, 6, 5, 4; the postmedial line arising from vein 6 towards termen, double, the inner line black, the outer brown, very strongly incurved and defined on outer side by whitish; a faint waved whitish subterminal line from vein 5 to tornus, angled inwards below vein 3 and with some whitish before it between veins 4, 3; some white at apex and a black-brown terminal line except at apex; cilia brown, white towards apex and with a brown line near base. Hind wing white suffused with brown, the costal area whiter; a fiery red terminal line; cilia white at tips; the underside white irrorated with brown, the terminal area suffused with purplish red, a dark discoidal lunule, medial line excurved beyond the cell, and crenulate postmedial and terminal lines.

Hab. Canada; U.S.A., Eastern, Middle, and Central States, Massachusetts, Beverly (*Burg*), 1 ♂, 3 ♀, New York (*Doubleday*), 1 ♀ type (*Packard*), 1 ♂, Evans Center (*Grote*), 2 ♂, 1 ♀. *Exp.* 24–28 millim.

6340. **Pæctes semicircularis**, n. sp. (Plate CLXXVI. fig. 32.)

♀. Head and thorax grey mixed with dark reddish brown; tegulæ with some dark brown before tips which are whitish; pectus whitish; abdomen grey suffused with brown, the base whitish with brown bar, the ventral surface whitish with subventral series of small brown spots. Fore wing purplish grey suffused with fuscous brown; a white patch below base of cell, its extremity extending just into the cell, bounded by the black antemedial line which arises at median nervure and is angled inwards at vein 1 almost to base, an olive-green band beyond it extending on inner margin to base; medial line indistinct, double, oblique, from vein 6 to inner margin; postmedial line double, almost obsolete, pinkish and oblique from costa to vein 6 near termen, then strong black-brown and very strongly incurved; subterminal line very indistinct, greyish, defined on inner side below vein 5 by slight blackish marks, excurved below costa, incurved and minutely waved below vein 4; a series of black striæ just before termen and a fine terminal line. Hind wing fuscous brown, the cilia whitish at tips; the underside grey suffused with brown, a dark discoidal bar, minutely waved medial line excurved beyond the cell, dentate postmedial line, and terminal series of lunules.

Hab. Trinidad, Cuparo (*Kaye*), 2 ♀ type. *Exp.* 20–24 millim.

6341. Pæctes chrysoplaga. (Plate CLXXVII. fig. 1.)

Pæctes chrysoplaga, Druce, A. M. N. H. (8) viii. p. 149 (1911).

Head pure white; palpi red-brown except at tips; antennæ brown; thorax red-brown mixed with some white and blackish; pectus and legs white mixed with reddish brown, the tarsi brown ringed with white; abdomen white mixed with red-brown especially towards base and extremity and with black dorsal bar near base, the ventral surface tinged with red-brown and with slight black segmental lines. Fore wing grey-white, the costal area suffused with red-brown, the basal area and postmedial area below costa tinged with flesh-colour; antemedial line black, arising at submedian fold and obliquely incurved, a conical golden-green patch beyond it with some blackish on its outer edge; a small white spot in middle of cell and a white discoidal spot constricted at middle and with black points in its upper and lower parts; a fine oblique blackish line from beyond upper angle of cell to inner margin; postmedial line whitish towards costa and excurved below costa, interrupted at discal fold, then double, black filled in with greenish, and strongly incurved, a large lunulate brown patch beyond it from discal fold to inner margin with two slight lines on it followed by a white mark on vein 2 and greenish patch above tornus; some white points on costa towards apex; traces of a double waved subterminal line; a grey-white patch at apex and series of black points before termen on apical half. Hind wing fuscous brown with some whitish at base. Underside of fore wing suffused with fuscous-brown except on inner area and with fiery red suffusion below postmedial part of costa; hind wing white irrorated with brown, the terminal area suffused with fiery red, a black discoidal point, curved medial line, double punctiform postmedial line, curved subterminal line, and series of points before termen.

Hab. Peru, San Domingo (*Ockenden*), 1 ♂. *Exp.* 26–30 millim. Type † ♂, ♀ in Coll. Druce.

6342. Pæctes circularis.

Ingura circularis, Herr.-Schäff. Aussereur. Schmett. f. 125 (1850).

♂. Head white irrorated with brown; palpi brown except towards extremity of 2nd joint; antennæ brown; thorax and abdomen grey suffused with fuscous brown, pectus whitish, abdomen with black dorsal band at extremity of 1st segment, the ventral surface whitish with subventral series of small black spots. Fore wing purplish grey suffused with dark brown and olive-yellow, the inner basal area and a diffused fascia below costa to near termen purplish pink; antemedial line indistinctly double, the outer line strong, black, oblique, from near base of vein 2 to inner margin; a dark point at lower angle of cell and faint double incurved line from it

to inner margin; postmedial line black, arising from vein 6 at subterminal line and very strongly incurved; subterminal line very indistinct, grey, waved, below vein 3 incurved and with white patch beyond it with some yellow and a slight blackish spot on it; a series of black striæ just before termen. Hind wing black-brown slightly mixed with grey. Underside of both wings dark brown mixed with purplish grey; fore wing with cupreous red patches on postmedial part of costa and at tornus; hind wing with the terminal area suffused with cupreous red, a small blackish discoidal spot and slight curved medial and postmedial lines.

Hab. Br. Guiana, Demarara (*Rodway*), 1 ♂; Surinam. *Exp.* 26 millim.

6343. Pæctes curvilinea. (Plate CLXXVII. fig. 2.)

Pæctes curvilinea, Schaus, A. M. N. H. (8) vii. p. 49 (1911).

♀. Head and tegulæ grey mixed with brown; palpi browner except in front; sides of frons blackish; thorax dark brown, the patagia grey at base and with black streak near upper edge; pectus whitish, the fore tibiæ dark brown, the tarsi black ringed with white; abdomen dark brown mixed with grey, the ventral surface with slight dark streaks. Fore wing grey suffused with brown with a paler area slightly tinged with red from base through the cell and below costa to the apical whitish patch; antemedial line double, very indistinct and obliquely curved from costa to submedian fold, then single, black, and angled inwards on vein 1 nearly to base, with some whitish above the tooth; orbicular and reniform faint, pale reddish slightly defined by brown, the former round, the latter with red-brown line in centre; a very indistinct medial line slightly angled outwards above vein 1; postmedial line almost obsolete on costal area, then black, strongly angled outwards at vein 6, then evenly incurved and double below vein 2, some white points beyond it on costa and black streaks above and below vein 6; a faint pale subterminal line arising at discal fold, excurved to vein 3, then incurved and waved; a fine crenulate black line just before termen except on apical area; a fine pale line at base of cilia. Hind wing whitish suffused with brown, the terminal area dark; slight double dark striæ on inner margin and a striga below vein 2 near termen; the underside white irrorated with brown, the terminal area suffused with brown, a brown discoidal spot, faint medial line excurved beyond the cell, a whitish curved postmedial line defined on each side by dark points.

Hab. Costa Rica, Juan Vinas (*Schaus*), 1 ♀. *Exp.* 32 millim.

6344. Pæctes flabella. (Plate CLXXVII. fig. 3.)

Ingura flabella, Grote, Can. Ent. xi. p. 208 (1879); Smith. Cat. Noct. N. Am. p. 240.

Head and thorax red-brown tinged with grey; neck with black

ring; tegulæ with dark line near tips, which are white; thorax with some dark brown scales; pectus white; tarsi dark brown ringed with white; abdomen reddish brown tinged wth grey. Fore wing grey almost wholly suffused with dark brown; subbasal line represented by a slight striga from costa; antemedial line double, the outer line prominent, black, angled outwards below costa, then excurved and acutely angled inwards on vein 1, a whitish patch before it below the cell; orbicular represented by a pale point, the reniform by a greyish lunule with dark striga in centre; medial line slight, bent outwards beyond the cell, then inwards to below the cell and dentate; postmedial line double, black, slightly bent outwards below costa, oblique to vein 6 where it is rather obtusely angled, then evenly incurved, some white points beyond it on costa; subterminal line greyish, angled inwards at discal fold and below vein 3 and excurved at middle, crossed by black streaks above and below vein 6; a greyish patch at apex; a series of black striæ just before termen and a fine terminal line; cilia with a dark line through them. Hind wing dark brown with a cupreous tinge; postmedial and two subterminal dark striæ at inner margin with whitish between them; cilia white slightly chequered with brown; the underside red mixed with blackish and some grey and with indistinct medial, double postmedial, and subterminal blackish lines.

Hab. U.S.A., Kansas, Douglas Co. (*Snow*), 1 ♂, 1 ♀ type. *Exp.* ♂ 26, ♀ 28 millim.

6345. Pæctes pygmæa.

Pæctes pygmæa, Hübn. Zutr. Ex. Schmett. p. 21, ff. 109–10 (1827); Smith, Cat. Noct. N. Am. p. 241.
Subrita abrostolella, Wlk. xxxv. 1744 (1866); Smith, Cat. Noct. N. Am. p. 240.
Ingura præpilata, Grote, Bull. Buff. Soc. Nat. Sci. ii. p. 311 (1875).

Head and thorax grey mixed with brown; frons with dark bar above; neck with black ring; tarsi brown ringed with white; abdomen grey suffused with brown, a dorsal series of slight black bars and lateral spots on medial segments. Fore wing grey suffused

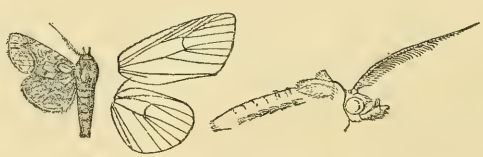


Fig. 46.—*Pæctes pygmæa*, ♂. ½.

with brown; a subbasal dark striga from costa; antemedial line double, black, obsolescent towards costa, angled outwards below costa, then excurved and acutely angled inwards on vein 1, a whitish patch before it below the cell; orbicular and reniform white defined

by brown, the former minute, round, the latter with brown striga in centre; medial line slight, dark, bent outwards beyond the cell, then inwards to below the cell and dentate; postmedial line double, black, obsolescent towards costa, slightly bent outwards below costa, oblique to vein 6 where it is rather obtusely angled outwards, then evenly incurved, some white points beyond it on costa and black streaks above and below vein 6; subterminal line indistinct, greyish, irregularly waved, excurved at middle, then incurved; a series of small black spots just before termen and a fine terminal line. Hind wing grey suffused with brown, the inner area whitish towards base; a dark postmedial striga at inner margin and two towards tornus; a blackish terminal line; cilia white with a brownish line through them; the underside white irrorated with brown, a brown discoidal lunule, sinuous medial line, indistinctly double waved postmedial line, and diffused waved subterminal line.

Hab. U.S.A. (*Doubleday*), 1 ♀ type *abrostolella*, Mississippi, Texas (*Belfrage*), 2 ♂, 1 ♀ type *præpilata*, New Mexico. *Exp.* 24–28 millim.

Larva. H. Edw. & Elliot, Papilio, iii. p. 135.

Yellowish apple-green, each somite with fifteen to eighteen irregularly disposed yellow spots, mostly lozenge-shaped, the subdorsal spots somewhat linear; 1st somite with yellow line in front; spiracles dull orange on a bright lemon-yellow stigmatal line. Food-plant, *Liquidambar ptyraciflua*, Linn.

6346. **Pæctes declinata.** (Plate CLXXVII. fig. 4.)

Ingura declinata, Grote, Can. Ent. xi. p. 207 (1879); Smith, Cat. Noct. N. Am. p. 240.

♂. Head and thorax grey mixed with brown; neck with black ring; tegulæ blackish at tips; patagia with some black scales; pectus whitish; tarsi brown ringed with white; abdomen grey dorsally suffused with brown, the lateral tufts and ventral bars on basal segments blackish. Fore wing grey suffused with purple-brown, especially on costal area and terminal area except towards apex; subbasal line represented by a dark striga from costa defined on outer side by whitish; antemedial line double, black, obsolescent towards costa, angled outwards below costa and inwards in cell, then excurved and angled inwards on vein 1 almost to base, a whitish patch before it below the cell; orbicular and reniform grey defined by brown, the former with brown point in centre, small, round, the latter with brown striga in centre, somewhat angled inwards on median nervure; a slight black medial line, bent outwards beyond the cell and angled inwards below the cell and at vein 1; postmedial line double, black, bent outwards below costa, oblique to vein 6 where it is acutely angled outwards, then incurved and slightly excurved at vein 4, some white points beyond it on costa and black streaks above and below vein 6; subterminal line indistinct, greyish, irregularly waved, incurved below vein 3; the terminal

area suffused with bluish white towards apex and with a series of fine black lunules just before termen; the extremities of veins with black streaks intersecting the cilia which have a fine whitish line at base. Hind wing white, the terminal area suffused with brown, the veins beyond the lower angle of cell slightly streaked with brown; a medial, two postmedial and two subterminal black striæ at inner margin; some dark striæ just before termen and a fine terminal line; cilia white; the underside with the costal and terminal areas irrorated with brown, a dark bar from middle of costa, double postmedial series of slight points, and series of points just before termen.

Hab. U.S.A., Colorado, California, 1 ♂ type. *Exp.* 32 millim.

6347. Pæctes acutangula, n. sp. (Plate CLXXVII. fig. 5.)

♂. Head and thorax red-brown mixed with white; palpi white in front and with some black at sides; frons with lateral black spots; antennæ with the basal joint white and white bars on shaft; neck with black ring; tegulæ with brown lines at middle and tips; patagia with curved black streak; pectus white; tarsi fuscous ringed with white; abdomen red-brown mixed with white, the basal segment whitish, black segmental lines except on basal segment, the ventral surface white with subventral series of small black spots and two red-brown streaks. Fore wing grey suffused with purple-brown; subbasal line represented by white striæ from costa and in cell; some white at base and a fascia below the cell extending to the antemedial line, which is double, black filled in with white, obsolescent towards costa, angled outwards below costa, then excurved and strongly angled inwards at vein 1; medial area suffused with white except on costal area and just beyond antemedial line; orbicular and reniform white defined by brown, the former small, round, with rufous point in cell, the latter with rufous striga in centre; medial line bent outwards beyond the cell, then bent inwards and dentate; postmedial line double, black filled in with white, obsolescent towards costa, bent outwards below costa, oblique to vein 6 where it is acutely angled outwards, then incurved and sinuous, some white points beyond it on costa; subterminal line indistinct, whitish, irregularly dentate, crossed by black streaks above and below vein 6, the lower extending almost to postmedial line; the apex white; a black point before termen below apex followed by a series of lunules slightly defined by white; a fine brown terminal line; cilia chequered with white towards apex and with fine white lines at base and near tips. Hind wing brown, the interspaces of basal half whitish; a brown postmedial striga at inner margin and two towards tornus; a series of slight brown striæ just before termen; cilia white with brown spots at base; the underside white, the costal and terminal areas suffused with brown, a sinuous brown medial line and double postmedial series of minute streaks on the veins.

Hab. Bahamas, Nassau (*Bonhote*), 2 ♂ type. *Exp.* 30 millim.

6348. Pæctes abrostoloides. (Plate CLXXVII. fig. 6.)

Ingura abrostoloides, Guen. Noct. ii. p. 311 (1852); Smith, Cat. Noct. N. Am. p. 240.
Edema producta, Wlk. v. 1031 (1855).

♂. Head and thorax red-brown mixed with grey, the vertex of head whitish; palpi and sides of frons blackish; neck with black band; tegulæ with brown lines at middle and tips; patagia with some black scales at tips; pectus whitish; tarsi black tinged with white; abdomen brown, whitish at base and with dorsal series of slight black bars. Fore wing grey, almost entirely suffused with brown; subbasal line represented by slight double striæ from costa; antemedial line double, black, obsolescent towards costa, angled outwards below costa, then excurved and strongly angled inwards on vein 1, an ochreous white patch before it below the cell; orbicular a faint pale round spot; reniform a faint pale lunule with brown striga in centre; medial line very indistinct, double, bent outwards below costa to just beyond the cell and dentate below the cell; postmedial line double, black, obsolescent towards costa, bent outwards below costa, oblique to vein 6, then incurved and slightly angled outwards below vein 4, some white points beyond it on costa; subterminal line indistinct, pale, irregularly dentate, crossed by an oblique series of three black streaks from termen below apex to vein 6 at postmedial line; a waved black line just before termen and fine terminal brown line; cilia intersected with blackish. Hind wing fuscous brown, the interspaces of basal half paler; an oblique blackish postmedial striga and two subterminal striæ at inner margin with some white between them; a fine dark terminal line; cilia white with brown spots from apex to vein 4; the underside whitish tinged with brown, a waved medial line, double minutely crenulate postmedial line, diffused subterminal line, and terminal series of slight lunules.

♀. Fore wing without the whitish patch before antemedial line.

Hab. Canada; U.S.A., 1 ♂, 3 ♀, Massachusetts, Illinois, Alabama, Florida, St. John's Bluff (*Doubleday*), 4 ♂, 3 ♀ type *producta*. Missouri. *Exp.* 28–34 millim.

6349. Pæctes fuscescens. (Plate CLXXVII. fig. 7.)

Edema fuscescens, Wlk. v. 1031 (1855).
Ingura abrostoloides, Druce, Biol. Centr.-Am., Het. i. p. 326 (nec Guen.).

Head and thorax red-brown tinged with grey, some black scales at tips of patagia and on metathorax; pectus yellowish white; tarsi blackish tinged with white; abdomen reddish brown mixed with grey, the basal segments whitish with slight black bars followed by black points, the ventral surface white tinged with rufous. Fore wing grey, almost entirely suffused with purple-brown; subbasal line represented by a slight pale striga from costa; antemedial line indistinctly double, blackish, angled outwards below

costa and slightly angled inwards at vein 1, sometimes with pale curved mark before it below the cell; orbicular and reniform small pale marks, the former round with rufous point in centre, the latter with rufous lunule in centre; medial line indistinct, bent outwards beyond the cell, then oblique, dentate; postmedial line double, black, bent outwards below costa, obliqne to vein 6 where it is obtusely angled outwards, then incurved and slightly excurved at vein 4, some pale points beyond it on costa; subterminal line greyish, waved, excurved at middle, then incurved, a black spot beyond it below vein 7; a series of slight black lunules just before termen and a fine terminal line; cilia brown intersected with blackish. Hind wing brown, the interspaces of basal half pale, the median nervure and veins beyond the cell streaked with blackish; a postmedial dark striga at inner margin and two towards tornus; cilia white with brown spots; the underside whitish irrorated with brown, a sinuous brown medial line and double postmedial series of minute streaks on the veins.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♂, 2 ♀; Honduras (*Miller*), 1 ♂, 1 ♀ type; Costa Rica, R. Sucio (*Rogers*), 1 ♂; Panama, Chiriqui (*Champion*), 2 ♂, at sea off Panama (*J. J. Walker*), 1 ♂, Godman-Salvin Coll.; Br. Guiana, Rockstone (*Kaye*), 1 ♂, 1 ♀; Brazil, Rio Janeiro, 1 ♂; Paraguay, Sapucay (*Foster*), 2 ♀. *Exp.* 24–32 millim.

6350. **Pæctes delineata.** (Plate CLXXVII. fig. 8.)

Ingura delineata, Guen. Noct. ii. p. 311, pl. 14. f. 9 (1852); Smith, Cat. Noct. N. Am. p. 240.

♂. Head, thorax, and abdomen grey mixed with brown; frons with dark spots at sides and bar above; neck with black ring; tegulæ with brown lines at middle and near tips; patagia with dark band at middle; tarsi brown with pale rings; abdomen with the base whitish and with dark scales on dorsum at extremities of the segments. Fore wing grey suffused with brown; subbasal line represented by a dark striga from costa; antemedial line double, black, obsolescent towards costa, excurved from below costa to vein 1 where it is acutely angled inwards, a curved whitish mark before it below the cell; two slight dark discoidal points; medial line slight, dark, bent outwards beyond cell, then inwards to below cell and dentate; postmedial line double, black, obsolescent towards costa, bent outwards below costa, then oblique to vein 6 where it is obtusely angled outwards, then incurved and slightly excurved at vein 4 and submedian fold, some slight whitish points beyond it on costa; subterminal line indistinct, greyish, irregularly waved, excurved at middle and angled inwards below vein 2, crossed by black streaks above and below vein 6; a series of slight black lunules just before termen and a fine terminal line; cilia intersected with blackish and with fine whitish line at base. Hind wing brown, the interspaces of basal area whitish; two slight dark striæ at inner

margin beyond middle; a fine dark terminal line; cilia white with a series of brown spots; the underside whitish irrorated with brown, a brown discoidal lunule, indistinct sinuous medial line, double postmedial series of points on the veins, and diffused subterminal band.

Hab. Canada; U.S.A. (*Doubleday*), 1 ♂, Massachusetts, south to Alabama and west to Illinois and Missouri. *Exp.* 34 millim. The specimen was labelled *Edema fuscescens*, Wlk. type.

Larva. Yellow-green; stigmatal line fine, yellow, continuous; eight other interrupted waved yellow lines; head and feet green. Food-plant, *Jasmine*.

6351. Pæctes lunodes. (Plate CLXXVII. fig. 9.)

Ingura lunodes, Guen Noct. ii. p. 310 (1852); Druce, Biol.-Centr. Am., Het. i. p. 326.
Edema producta, Wlk. v. 1031 (1855), var. β.

Head and thorax grey mixed with brown; frons blackish at sides and with dark bar above; neck with black ring; tegulæ with brown lines at middle and near tips; patagia with blackish bands; pectus whitish, the tarsi blackish ringed with white; abdomen grey suffused with brown, whitish at base and with dorsal series of slight black bars and lateral spots, the ventral surface whitish with brown subventral and ventral streaks. Fore wing grey suffused with brown, an oblique white shade from apex to middle of inner margin; antemedial line double, black, obsolescent towards costa, angled outwards below costa and inwards on vein 1 to near base, a whitish patch before it below the cell; two dark discoidal points; medial line slight, dark, bent outwards beyond the cell, then inwards and dentate; postmedial line double, black, obsolescent towards costa, bent outwards below costa, then oblique to vein 6 where it is obtusely angled outwards, then incurved and slightly excurved at vein 4, some white points beyond it on costa and black streaks above and below vein 6; a series of slight black lunules just before termen, reduced to points on the white apical patch, and a fine terminal line; cilia intersected with blackish and with white patch below apex. Hind wing brown, the interspaces of basal half whitish, the veins with dark streaks, a black postmedial striga at inner margin and two towards tornus; cilia white with a series of brown spots; the underside whitish irrorated with brown, a dark discoidal lunule, sinuous medial line, double postmedial series of points on the veins, and diffused subterminal line.

Hab. U.S.A., Florida (*Schaus*), 1 ♀; Honduras (*Dyson*), 1 ♂, 1 ♀; Bahamas, Abaco (*Bonhote*), 1 ♀, Andros (*Neville Chamberlain*), 1 ♀; Jamaica (*Gosse*), 1 ♀; Cuba, 1 ♂, Tanamo (*Schaus*), 1 ♀; Haiti (*Tweedie*), 1 ♂, 4 ♀; Sta. Lucia (*Cowie*), 2 ♀; Grenada (*H. H. Smith*), 3 ♀; Trinidad, Cuparo, 1 ♀; Brazil, Organ Mts., Tijuca (*Wagner*), 3 ♀, São Paulo (*D. Jones*), 1 ♂; Paraguay, Sapucay (*Foster*), 1 ♀. *Exp.* 28–34 millim.

6352. Pæctes arcigera. (Plate CLXXVII. fig. 10.)

Ingura arcigera, Guen. Noct. ii. p. 312 (1852).
Edema nana, Wlk. xxxii. 425 (1865).
Ingura murina, Druce, Biol. Centr.-Am., Het. i. p. 328 (part.).

Head and thorax grey mixed with brown; frons with dark bar above; neck with black ring; tegulæ with some black scales at tips; patagia with blackish band at base; pectus whitish; tarsi brown ringed with white; abdomen grey suffused with brown and with dorsal series of black bars, the ventral surface grey streaked with brown. Fore wing purplish grey suffused with brown, a curved whitish shade from termen below apex to middle of inner margin; subbasal line represented by a slight striga from costa; antemedial line indistinct, double, and waved from costa to below the cell, then forming a prominent V-shaped black mark angled inwards on vein 1 and with a semicircular white mark above it; orbicular represented by a whitish point, the reniform by two rufous points; medial line slight, bent outwards beyond the cell, then inwards to below the cell and dentate; postmedial line double, almost obsolete towards costa, bent outwards below costa, oblique to vein 6 where it is obtusely angled outwards, then incurved, with black band on its inner edge between veins 6 and 5, slightly excurved at vein 4 and prominent and black towards inner margin, some whitish points beyond it on costa and black streaks above and below vein 6, the upper one diffused into a wedge-shaped mark at termen; subterminal line very indistinct, grey, irregularly dentate; a series of slight black lunules just before termen except towards apex; cilia intersected with blackish. Hind wing whitish, the terminal area suffused with brown, the veins with blackish streaks; postmedial and two subterminal black striæ at inner margin; cilia white with brown spots from apex to vein 2; the underside whitish with indistinct double postmedial series of dark points on the veins, the terminal area tinged with brown.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♂, Godman-Salvin Coll.; Bahamas (*Bonhote*), 1 ♀; Haiti (*Tweedie*), 2 ♂ type *nana*; St. Thomas. *Exp.* ♂ 28, ♀ 30 millim.

6353. Pæctes obrotunda. (Plate CLXXVII. fig. 11.)

Ingura obrotunda, Guen. Noct. ii. p. 312 (1852).

Head and thorax grey mixed with red-brown; frons with dark bar above; patagia with dark medial band; tarsi blackish ringed with white; abdomen grey suffused with brown, whitish at base, the ventral surface whitish with subventral blackish streaks. Fore wing grey suffused with red-brown, leaving an oblique grey shade from apex to middle of inner margin; antemedial line very indistinct, double, sinuous, slightly angled inwards at vein 1; a faint pale point in middle of cell and two rufous discoidal points; an oblique dark shade from cell to inner margin before the pale

shade; medial line slight, blackish, bent outwards beyond the cell and angled inwards at veins 2 and 1; postmedial line double, black, bent outwards below costa, excurved above vein 6, then incurved and sinuous, some white points beyond it on costa and slight black streaks on veins 7, 6 and between them; subterminal line indistinct, greyish, irregularly waved; a series of black striæ just before termen; cilia intersected with blackish and with white spot just below apex. Hind wing brown, the interspaces of basal half whitish, the veins with dark streaks; postmedial and two subterminal black striæ at inner margin; cilia white with brown spots from apex to vein 2 and bar at tornus; the underside white slightly irrorated with brown, the costal and terminal areas tinged with rufous, a slight sinuous medial line, double postmedial series of minute streaks on the veins, and terminal series of small triangular spots.

Hab. Jamaica, Kingston (*Cockerell*), 1 ♂, Runaway Bay (*Walsingham*), 1 ♂; Cuba, Santiago (*Schaus*), 4 ♂; Haiti (*Tweedie*), 1 ♂; Sta. Lucia (*Cowie*), 5 ♂, 1 ♀; St. Vincent (*H. H. Smith*), 1 ♂; Grenada (*H. H. Smith*), 1 ♂; Paraguay, Sapucay (*Foster*), 1 ♂, 1 ♀. *Exp.* 24–30 millim.

6354. **Pæctes nubifera**, n. sp. (Plate CLXXVII. fig. 12.)

Ingura abrostoloides, Druce, Biol. Centr.-Am., Het. i. p. 326 (part., nec Guen.).

Ingura murina, Druce, Biol. Centr.-Am., Het. i. p. 326 (part.).

♂. Head and thorax grey tinged with rufous and irrorated with fuscous; tarsi fuscous ringed with white; abdomen grey tinged with rufous, the ventral surface whitish streaked with brown. Fore wing grey suffused with ferruginous brown, an oblique pale grey shade from apex to middle of inner margin; antemedial line indistinct, double, waved; a faint pale point in middle of cell and two rufous discoidal points; postmedial line double, bent outwards below costa, oblique to vein 6 where it is obtusely angled outwards, incurved and slightly sinuous below vein 4 and with white points on the veins, some white points beyond it on costa and a curved black mark below vein 6; subterminal line indistinct, greyish, waved; a series of black striæ just before termen and a fine terminal line. Hind wing fuscous brown, the interspaces of basal half whitish, the veins with blackish streaks; two blackish striæ at inner margin beyond middle; cilia white, with brown spots from apex to vein 2; the underside whitish tinged with brown, a dark discoidal lunule, sinuous medial line, postmedial series of minute dark streaks on the veins, and diffused subterminal line.

♀. Fore wing with yellowish-white patch before the antemedial line above vein 1.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♂ type; Costa Rica, Candelaria Mts. (*Underwood*), 1 ♂, Sta. Clara Valley (*Zurcher*), 1 ♀, Godman-Salvin Coll. *Exp.* 30 millim.

6355. **Pæctes chlorophora**, n. sp. (Plate CLXXVII. fig. 13.)

♀. Head, thorax, and abdomen rufous mixed with ochreous and some dark brown scales; pectus yellowish white; tarsi blackish ringed with white; abdomen with blackish dorsal spots on medial segments placed on pale bars, the ventral surface greenish yellow with subventral black points on 1st and penultimate segments. Fore wing red-brown; a golden-green patch at base of costa; antemedial line slight, black towards inner margin, defined on inner side by a golden green band, angled outwards below costa, then sinuous; orbicular and reniform with red-brown centres and ochreous annuli slightly defined by blackish, the former small, round, the latter narrow and constricted at middle; a waved medial line from cell to inner margin, and another waved line from vein 6 beyond the cell to inner margin; postmedial line double with a golden green band on its outer edge, slightly bent outwards below costa, then minutely waved, excurved to vein 4, then incurved, a rather darker triangular patch beyond it on costal area and some whitish points on costa; subterminal line indistinct, pale, waved, with black streaks beyond it above and below vein 6, angled inwards at discal fold and incurved below vein 3; a pale apical patch and a series of blackish striæ before termen; cilia intersected with blackish. Hind wing fuscous brown with some ochreous white at base of inner area; three black striæ on inner area towards tornus; a black terminal line; cilia ochreous white slightly mixed with red-brown; the underside ochreous white irrorated with brown, the terminal area suffused with red-brown, a blackish discoidal lunule, crenulate medial line excurved beyond the cell, double crenulate postmedial line, and indistinct waved subterminal line.

Hab. W. Colombia, 1 ♀ type, San Antonio (*Palmer*), 2 ♀. *Exp.* 34 millim.

*6356. **Pæctes phæoplaga.** (Plate CLXXVII. fig. 14.)

Pæctes phæoplaga, Schaus, Proc. Ent. Soc. Wash. xiii. p. 43 (1911).

♂. Head and tegulæ black-brown; thorax reddish brown mixed with grey; pectus red-brown in front, white behind; fore and mid legs brown, the tarsi ringed with white; hind legs white irrorated with brown; abdomen reddish brown irrorated with dark brown, some grey-white at base. Fore wing red-brown mixed with some grey-white; subbasal line represented by indistinct double dark striæ from costa; antemedial line indistinctly double filled in with grey, minutely waved; orbicular and reniform rufous defined by blackish, the former small, round, the latter with whitish annulus and narrowing above; medial line dark, waved, arising at vein 6 beyond the cell and bent inwards below end of cell; postmedial line double, filled in with white beyond the cell, oblique to vein 6 where it is slightly angled, and incurved below vein 4, some white points beyond it on costa,

traces of another irregular line, and a fuscous patch on inner area from vein 2 to tornus; subterminal line greyish, minutely waved, oblique and defined on outer side by brown towards costa, angled inwards at vein 2, then oblique to tornus; a series of dark brown striæ just before termen; cilia with a fine brown line near base. Hind wing dark brown with some white and red-brown striæ on terminal half of veins 2 and 1; cilia chequered white and dark brown. Underside of fore wing fuscous, the costal area rufous and whitish with some white spots towards apex; hind wing white irrorated with brown, the terminal area fuscous brown except at apex, a slight black discoidal lunule, minutely waved medial line excurved beyond the cell, and curved postmedial line with minute black streaks on the veins.

Hab. Fr. Guiana, St. Laurent Maroni (*Schaus*), type † ♂ in U.S. Nat. Mus. *Exp.* 26 millim.

*6357. Pæctes eumicta. (Plate CLXXVII. fig. 15.)

Pæctes eumicta, Schaus, Proc. Ent. Soc. Wash. xiii. p. 44 (1911).

♂. Head and thorax olive-brown mixed with some grey and black; pectus ochreous white; tarsi blackish with pale rings; abdomen fuscous brown mixed with grey. Fore wing olive-brown mixed with some grey; subbasal reddish ochreous patches below costa and cell and above inner margin; antemedial line double, waved; orbicular and reniform reddish brown with pale annuli defined by black, the former small, round, the latter narrowing above and produced to a point at lower extremity; medial line blackish, oblique, waved, arising at vein 6 beyond the cell; postmedial line double filled in with whitish, bent outwards below costa, slightly angled outwards at vein 6, then minutely waved, oblique and sinuous below vein 4, some white points beyond it on costa and traces of an irregular brown line; subterminal line grey, incurved below costa, excurved below vein 7 and at middle, then minutely waved; a series of black points just before termen; cilia with a pale line at base. Hind wing dark brown, a pale point on extremity of vein 2 and some pale striæ on terminal half of vein 1; cilia chequered ochreous and brown; the underside white irrorated with brown, the terminal area suffused with fuscous, a black discoidal spot, minutely waved medial line excurved beyond the cell, double crenulated postmedial line, and traces of subterminal line.

Hab. Fr. Guiana, St. Jean Maroni (*Schaus*), type † ♂ in U.S. Nat. Mus. *Exp.* 26 millim.

6358. Pæctes nyctichroma. (Plate CLXXVII. fig. 16.)

Ingura nyctichroma, Hmpsn. A. M. N. H. (7) xvi. p. 370 (1905).

♂. Head and thorax dark red-brown irrorated with black; tegulæ with diffused black medial line; patagia with short black

streaks; prothorax with pair of white points; pectus with some white hair; tarsi ringed with white; abdomen red-brown with dorsal and subdorsal series of black points, the 2nd and 3rd segments with lateral white lines. Fore wing red-brown suffused with fuscous; a double minutely waved antemedial black line; orbicular absent; reniform a greyish bar with red-brown line in centre; a waved line from lower angle of cell to inner margin; postmedial line black, slightly bent outwards below costa, angled outwards above vein 6 and incurved below vein 4, with traces of a waved line before it; a slight black streak above middle of vein 5; traces of a pale subterminal line defined on each side by brown, slightly angled outwards at vein 7 and below vein 3 forming two whitish dentitions; a whitish patch at apex with short black streak below it; a series of oblique black striæ just before termen; a fine dark terminal line. Hind wing dark reddish brown, the interspaces of inner area pale towards base; some black striæ on inner margin towards tornus; a fine pale line at base of cilia; the underside grey irrorated and suffused with brown, a medial line strongly excurved at middle, traces of a double waved postmedial line with series of points on the veins, and a diffused subterminal line.

Hab. Panama, La Chorrera (*Dolby-Tyler*), 1 ♂ type. *Exp.* 30 millim.

*6359. Pæctes endochlora. (Plate CLXXVII. fig. 17.)

Pæctes endochlora, Schaus, Proc. Ent. Soc. Wash. xiii. p. 44 (1911).

♀. Head and thorax dark brown mixed with some grey; pectus white; legs brown and white, the tarsi blackish ringed with white; abdomen fuscous mixed with grey, the extremity with some blood-red, the sides white towards base, the ventral surface white with sublateral series of black bars. Fore wing fuscous brown mixed with purplish grey, some ochreous at base, the medial area with yellow-green fascia on inner margin; antemedial line double, minutely waved; orbicular a minute grey spot; reniform represented by two small blackish spots with grey annuli; medial line dark, oblique, waved, arising at vein 6 beyond the cell; postmedial line double filled in with whitish, slightly bent outwards below costa, then minutely waved, excurved to vein 4, then oblique, some white points beyond it on costa; subterminal line grey, minutely waved; some whitish suffusion below apex; a series of dark striæ just before termen. Hind wing fuscous brown; cilia pure white at tips; the underside white suffused with blue-grey, a minutely waved medial line and double minutely waved postmedial line.

Hab. Fr. Guiana, Cayenne (*Schaus*), type † ♀ in U.S. Nat. Mus. *Exp.* 20 millim.

*6360. Pæctes hæmatosema. (Plate CLXXVII. fig. 18.)

Pæctes hæmatosema, Schaus, Proc. Ent. Soc. Wash. xiii. p. 43 (1911).

♂. Head white slightly irrorated with blackish; frons with lateral black bars and spot above; antennæ fuscous, the shaft white on basal half; thorax red-brown with some white scales, the metathorax with small white patch; pectus white; legs white irrorated with brown, the fore tibiæ brown except at extremity, the tarsi banded fuscous and white; abdomen white mixed with brown, the extremity olive-brown, the ventral surface brown irrorated with white. Fore wing with the basal area olive-brown, the medial area fuscous brown, the rest of wing white mixed with olive-brown on postmedial area and fuscous brown on terminal area, a fuscous apical patch; a white subbasal striga from costa; antemedial line black, defined on inner side by white on costal half, oblique and minutely waved to submedian fold, then inwardly oblique; orbicular a minute white spot; reniform small, with olive-brown centre and white annulus, very narrow above; medial line black, oblique, minutely waved, arising at vein 6 beyond the cell, the area white from it to postmedial line, which is black defined on outer side by white, slightly bent outwards below costa, then oblique, minutely waved; postmedial area with some white points on costa and a slight white line, oblique towards costa, then minutely waved to vein 3; subterminal line white, oblique to vein 6, then minutely waved, slightly bent inwards at vein 3 and ending on termen above tornus where there is a bright crimson spot; a series of black striæ just before termen; cilia pale olive, dark towards apex. Hind wing with the basal half white, the veins and inner margin brown, the terminal half fuscous brown with an oblique white striga at extremity of vein 2 and some black striæ on inner margin; cilia white with brown spots. Underside of fore wing fuscous, the costal area white irrorated with brown, the postmedial and subterminal lines white; hind wing white, the costal area irrorated with brown, a small black discoidal spot, obsolescent curved minutely waved medial line, obsolescent postmedial line with minute black streaks on the veins, the terminal area fuscous with minutely waved white subterminal line.

Hab. Fr. Guiana, St. Jean Maroni (*Schaus*), type † ♂ in U.S. Nat. Mus. *Exp.* 26 millim.

6361. Pæctes glauca. (Plate CLXXVII. fig. 19.)

Ingura glauca, Hmpsn. A. M. N. H. (7) xvi. p. 369 (1905).

Head, thorax, and abdomen grey tinged with pale olive-yellow and irrorated with black, the last with subdorsal and subventral series of small black spots. Fore wing grey largely suffused with pale olive-yellow and slightly irrorated with black, more thickly on medial area; a black spot at base of cell with striga from costa above it; an antemedial black line angled outwards below costa, then slightly waved and with traces of an olive line before it;

orbicular and reniform small with olive centres and grey annuli, the former round or elongate elliptical, sometimes confluent with the latter which has its lower extremity produced to a point; a diffused waved black medial line; postmedial line double, bent outwards below costa, then the inner line excurved in the interspaces and angled inwards on the veins, then oblique below vein 4, the outer line reduced to black points and a prominent lunule above inner margin, followed by an oblique olive band from costa to vein 4, then incurved and reduced to spots; some black points on costa towards apex; an oblique olive band across apical area from costa to vein 6; a grey and black apical patch with a pale curved line on its inner edge and a waved black line on termen; a series of black points just before termen and more prominent spot at submedian fold; cilia intersected with black near apex. Hind wing pale suffused with fuscous on the veins and terminal area and with olive on inner area, more uniformly fuscous in female. Underside of fore wing with the costal and terminal areas whitish; hind wing whitish with traces of medial line, postmedial series of black points, diffused waved subterminal line, and waved terminal line.

Hab. W. Colombia, Jiminez, 1 ♀; Venezuela, Aroa, 1 ♂ type; Br. Guiana, Potaro R. (*Kaye*), 1 ♀. *Exp.* 28 millim.

6362. Pæctes polia, n. sp. (Plate CLXXVII. fig. 20.)

Ingura griseifusa, Hmpsn. A. M. N. H. (7) xvi. p. 370, ♀ (nec ♂).

♀. Head and thorax grey-white mixed with blackish and some brown; frons with black bar; tegulæ with black band at base; pectus and legs white tinged with red-brown, the fore and mid tarsi blackish ringed with white; abdomen grey tinged with fuscous except at base and with blackish segmental lines, the ventral surface whiter with subventral series of black points. Fore wing purplish grey irrorated with fuscous; antemedial line blackish, sinuous; orbicular and reniform with brownish centres and grey annuli faintly defined by blackish, the former small, round; a slight oblique medial line from cell to inner margin and waved line from vein 6 beyond the cell to inner margin; postmedial line double, blackish, slightly bent outwards below costa, then minutely waved, excurved to vein 5, then oblique, some white points beyond it on costa with rufous between them; traces of a double waved subterminal line with blackish spots before it at discal fold and above inner margin and some black beyond it at apex; a series of black points before termen and larger spot at submedian fold; cilia intersected with black. Hind wing white, the veins blackish, the terminal area blackish except towards tornus; some blackish striæ on inner margin towards tornus; cilia white mixed with black-brown; the underside white, the costal area slightly irrorated with brown, the terminal area suffused with fuscous, a double postmedial series of black points on the veins.

Hab. Paraguay, Sapucay (*Foster*), 1 ♀ type. *Exp.* 30 millim.

6363. Pæctes griseifusa. (Plate CLXXVII. fig. 21.)

Ingura griseifusa, Hmpsn. A. M. N. H. (7) xvi. p. 370 (1905).

♂. Head and thorax grey tinged with rufous and irrorated with a few black scales; abdomen grey irrorated with black. Fore wing grey-white irrorated with fuscous and slightly tinged with brown; a waved black antemedial line; orbicular and reniform moderate, rounded, defined by black, an indistinct waved medial line; postmedial line double, bent outwards below costa and incurved below vein 4, with another indistinct line beyond it; short black streaks above middle of veins 5, 6; a dark patch from costa before apex; a crenulate line just before termen. Hind wing fuscous brown, the interspaces of basal and inner areas paler; a slight pale mark above tornus and some black striæ on inner margin near tornus; the underside paler except terminal area, traces of waved medial, postmedial, and subterminal lines.

Hab. Costa Rica, Candelaria Mts. (*Underwood*), 1 ♀, Godman-Salvin Coll.; Brazil, Rio Janeiro, 1 ♂ type, Organ Mts., Tijuca (*Wagner*), 1 ♂, 1 ♀. *Exp.* 32 millim.

6364. Pæctes canofusa.

Ingura canofusa, Hmpsn. Trans. Ent. Soc. 1898, p. 249, pl. 17. fig. 16.

Head and thorax white mixed with some red-brown, the tegulæ red-brown at tips; palpi red-brown irrorated with black; frons with red-brown bar above and black lateral bars below; antennæ brown; neck with black ring; thorax red-brown mixed with grey, the patagia with some black scales on upper edge; pectus and legs white and rufous, the tarsi black ringed with white; abdomen grey-white suffused in parts with reddish brown, dorsal blackish spots on basal segments and subdorsal series of bars, ventral black spots on basal segments followed by subventral points. Fore wing grey-white suffused with red-brown, the medial and apical areas less suffused; subbasal line represented by double brown striæ from costa and a blackish spot in cell; blackish spots on costa and inner margin before the antemedial line, which is double, sinuous; orbicular white defined by brown and with some pinkish in centre, small, round; reniform white faintly defined by brown, with brown striga in middle and black point at lower angle of cell, a waved line from it to inner margin; postmedial line double, oblique from costa to vein 6, then minutely waved, incurved below vein 4, a slight black streak from it to subterminal line in discal fold, some white points and brown streaks beyond it on costa; subterminal line indistinctly double filled in with whitish, the outer line strong blackish and incurved from costa to vein 6 where it is angled outwards, then minutely waved; a series of black striæ just before termen and a fine blackish terminal line; cilia intersected with blackish. Hind wing fuscous brown, the cell and interspaces of inner area whitish; a postmedial and two sub-

terminal black striæ on inner margin; a fine black terminal line from apex to vein 2; cilia yellowish white intersected with brown; the underside white irrorated with fuscous, the terminal area tinged with rufous, a blackish discoidal lunule, medial line excurved beyond the cell, crenulate postmedial line with series of black points beyond it, rather diffused subterminal line, and terminal series of small triangular spots.

Hab. Panama, La Chorrera (*Dolby-Tyler*), 1 ♀; Sta. Lucia (*Rotherham*), 1 ♂; Dominica (*Elliot*), 3 ♀ type; Venezuela, Aroa, 1 ♂; S.E. Peru, S. Domingo. *Exp.* 28–36 millim.

6365. **Pæctes areusa.** (Plate CLXXVII. fig. 22.)

Penicillaria areusa, Wlk. Trans. Ent. Soc. (3) i. p. 93 (1862).

Head and thorax red-brown mixed with grey and some dark brown; palpi dark at tips; antennæ dark brown, the shaft whitish towards base; fore tibiæ and tarsi with blackish bands; abdomen grey suffused with red-brown, darker towards extremity and with slight dorsal black bars on 2nd and 3rd segments, the ventral surface whitish with black spots on first three segments and subventral series of points on medial segments. Fore wing grey suffused with rufous and with some green on basal, costal, and inner areas, the medial area greyer; a whitish patch below base of cell; subbasal line represented by a slight dark striga from costa; antemedial line straight, double, incurved in cell and at vein 1, a greenish band before it; orbicular small, round, with whitish annulus slightly defined by brown; reniform narrow, white with red-brown line on discocellulars; medial line fine, brown, excurved round end of cell, then waved; postmedial line double, bent outwards below costa, incurved and sinuous below vein 4, some white points beyond it on costa; subterminal line pale with a dark patch at costa and whitish patch beyond it below apex, incurved below costa, incurved and sinuous below vein 3, a small black spot beyond it above vein 6 and a black streak before it below vein 6; a series of slight black lunules before termen. Hind wing fuscous brown, some whitish at base; the inner margin whitish with some black striæ towards tornus; a fine waved dark terminal line; cilia white intersected with brown; the underside white irrorated with brown, a dark discoidal lunule, medial line excurved beyond the cell, double punctiform postmedial line, and whitish subterminal line defined on each side by fuscous suffusion and by rufous towards apex.

Ab. 1. Abdomen dorsally grey suffused with brown, ventrally fuscous brown; fore wing with green patches on basal area only; the medial area with narrow oblique pale band, the subterminal line without the small black spot beyond it above vein 6.

Hab. Panama, La Chorrera (*Dolby-Tyler*), 1 ♂, 1 ♀; W. Colombia, Jiminez, 1 ♂; Brazil, type † in Mus. Oxon, Bahia (*Oldfield Thomas*), 1 ♀. *Exp.* 28–32 millim.

6366. Pæctes sabulosa. (Plate CLXXVII. fig. 23.)

Ingura sabulosa, Schaus, Pr. U.S. Nat. Mus. xxx. p. 98 (1906).

♀. Head and thorax brown mixed with grey and fuscous; 3rd joint of palpi blackish; tegulæ whitish at base; tarsi blackish ringed with white; abdomen white irrorated with brown, the dorsal crests blackish. Fore wing grey-white irrorated and suffused with fuscous brown, a whitish patch on basal area below the cell; subbasal line represented by two blackish points on costa with some white between them; antemedial line double, waved; orbicular and reniform round defined by blackish, the former with white centre, the latter with white lunule on inner side of centre and white bar before it; medial line irregularly waved, double from cell to inner margin; postmedial line double, filled in with white at costa, bent outwards below costa, angled outwards at vein 6, then minutely waved, incurved below vein 4, some white points beyond it on costa, another line beyond it diffused and oblique from costa to vein 5 where it is angled outwards, then minutely waved; an indistinct double minutely waved subterminal line, filled in with white in places; a crenulate black terminal line enclosing whitish lunules. Hind wing whitish suffused with brown especially on the veins and terminal area leaving a white patch on termen towards tornus; the inner margin white towards tornus with an oblique black postmedial striga and three at tornus; some dark points on the veins beyond lower angle of cell; a terminal series of small dark lunules; cilia white; the underside whitish, the costal and terminal areas tinged with brown, a diffused brown bar from costa to upper angle of cell, and double postmedial series of dark points on the veins.

Hab. W. Colombia, San Antonio (*Palmer*), 1 ♀; Brazil, São Paulo in Coll. D. Jones. *Exp.* 30 millim.

6367. Pæctes albescens, n. sp. (Plate CLXXVII. fig. 24.)

Head and thorax white slightly tinged with brown; palpi with black bands on 2nd and 3rd joints; frons with lateral black spots; antennæ with tuft of black scales on basal joint and black point behind them; neck with black ring; the tegulæ with black bands at middle and tips; abdomen white slightly irrorated with brown and with subbasal and subventral series of black points. Fore wing white irrorated with brown; a subbasal black striga from costa; antemedial line black defined on outer side by brown, incurved in cell and angled inwards at vein 1 to a streak extending to near base; orbicular and reniform large, defined by black, their centres faintly tinged with olive, the former round, the latter open above and with some black suffusion beyond it; medial line represented by a black striga from costa to reniform and indistinctly double dentate line from lower angle of cell to inner margin; postmedial line double, black, bent outwards below costa,

oblique to vein 6, incurved below vein 4 and slightly angled inwards at vein 1, the costa beyond it black with some white points; subterminal line represented by a white striga on a black spot below costa, then defined by slight fuscous marks on inner side and black streaks on veins 3, 2, 1, excurved at middle; a series of small black lunules just before termen and fine fuscous terminal line. Hind wing white, the terminal area suffused with fuscous brown, the median nervure and veins beyond the cell streaked with black; a black postmedial striga at inner margin and two towards tornus; a small black spot followed by some white towards extremity of vein 2; cilia white; the underside white, the terminal area tinged with brown, a medial black striga from costa, and double postmedial series of minute black streaks on the veins.

Hab. Honduras (*Dyson*), 1 ♂ type; Colombia, Minca (*H. H. Smith*), in Coll. Druce. *Exp.* 30 millim.

Species omitted.

Eutelia procera, Saalm. Lep. Madag. p. 383 (1891).	Madagascar.
Eutelia vulgaris, Mab. Ann. Soc. Ent. Fr. 1899, p. 731	E. Africa.
Eutelia gilvicolor, Mab. Ann. Soc. Ent. Fr. 1899, p. 732	E. Africa.
Penicillaria solida, Wlk. xxxiii. 814 (1865). Type lost	Ceylon.
Penicillaria resoluta, Wlk. xxxiii. 815 (1865). Type lost	Ceylon.
Ingura pallida, Möschl. Abh. Senck. Ges. xiv. p. 53 (1886)	Jamaica.
Ingura elegans, Möschl. Abh. Senck. Ges. xvi. p. 170 (1890)	Porto Rico.
Ingura vittata, Möschl. Abh. Senck. Ges. xvi. p. 171 (1890)	Porto Rico.
Ingura burserœ, Dyar, P. Ent. Soc. Wash. iv. p. 455 (1901), larva, Dyar, Proc. U.S. Nat. Mus. xxiii. p. 271 ? = *Pœctes lunodes*	Florida.

Subfamily STICTOPTERINÆ.

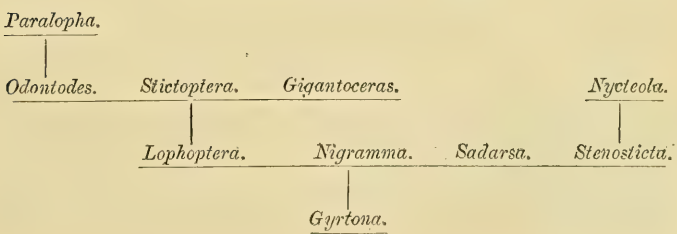
Proboscis fully developed; palpi upturned or oblique and with the 2nd joint fringed with hair above towards extremity, the 3rd joint usually rather long and sometimes dilated at extremity; frons smooth with tuft of hair above; eyes large and naked without bristly cilia from their margins; antennæ ciliated, sometimes very long; thorax clothed almost entirely with scales, with or without slight crests, the patagia sometimes with erectile triangular crest on upper edge; tibiæ usually moderately fringed with hair; abdomen with or without slight crests. Fore wing triangular or narrow and elongate, sometimes with scale-tooth at tornus; with small tufts of raised scales in the cell; vein 1 *a* weak, not anastomosing with 1 *b*; 1 *c* absent; 2 from middle of cell; 3 and 5 from near lower angle; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 1 *a* and 1 *b* present; 1 *c* absent; 3, 4 from lower angle of cell, rarely stalked; 5 fully developed, from or from just above angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only; frenulum of female simple.

Larva with all the prolegs present, almost smooth, the warts with single hairs; the 12th somite slightly humped.

Fig. 47.—Larva of *Stictoptera subobliqua*. ¾.

The subfamily is a development from the *Noctuinæ*, from which it is distinguished by the single frenulum of the female and the tufts of raised scales in the cell.

Phylogeny of the Stictopterinæ.



Key to the Genera.

A. Fore wing with scale-tooth at tornus.
  a. Metathorax with large depressed crest; abdomen with large crests on four basal segments ..... PARALOPHA, p. 142.
  b. Thorax without crests; abdomen with crests on 1st and 3rd segments ..... ODONTODES, p. 143.
B. Fore wing without scale-tooth at tornus.
  a. Patagia with erectile triangular crest on upper edge; palpi with the 3rd joint dilated at extremity ..... STICTOPTERA, p. 146.
  b. Patagia without crest on upper edge; palpi with the 3rd joint not dilated at extremity.
    a^1. Antennæ about one and a half times length of fore wing ..... GIGANTOCERAS, p. 172.
    b^1. Antennæ not longer than fore wing.
      a^2. Fore wing triangular ..... LOPHOPTERA, p. 175.
      b^2. Fore wing narrow.
        a^3. Fore wing with the costa highly arched. SADARSA, p. 203.
        b^3. Fore wing with the margins almost parallel.
          a^4. Hind wing with veins 3, 4 stalked.
            a^5. Hind wing with vein 8 anastomosing with the cell to middle ..... NYCTEOLA, p. 205.
            b^5. Hind wing with vein 8 anastomosing with the cell near base only ..... STENOSTICTA, p. 206.
          b^4. Hind wing with veins 3, 4 from cell.
            a^5. Prothorax with sharp ridge-like crest ..... NIGRAMMA, p. 196.
            b^5. Thorax without crests ..... GYRTONA, p. 207.

Genus **PARALOPHA.**

Type.
Paralopha, Beth.-Baker, Nov. Zool. xv. p. 204 (1908) ..... *rubiginea*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head, the 3rd long; frons smooth; eyes large, round; antennæ of female minutely ciliated; thorax clothed with scales and hair mixed, the metathorax with large depressed crest; hind tibiæ fringed with long hair; abdomen with large dorsal crests on four basal segments. Fore wing with the apex rounded, the termen evenly curved and slightly crenulate, the inner margin lobed near base and with scale-tooth near tornus; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with the cell less than half length of wing; veins 3, 4 from angle; 5 from above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

*6368. **Paralopha rubiginea.**

Paralopha rubiginea, Beth.-Baker, Nov. Zool. xv. p. 204 (1908).

♀. Head and thorax reddish brown mixed with some greyish, the metathoracic crest fuscous; tarsi blackish ringed with white; abdomen reddish brown tinged with grey. Fore wing red-brown mixed with greyish and ochreous; a rather darker patch at base of costa and subbasal patches on costa and inner margin; antemedial line indistinct, red-brown defined on inner side by ochreous, curved,

waved; a patch of blue-grey suffusion irrorated with black in and below end of cell; a black discoidal striga with patches of chocolate-brown beyond it and above it on costa; postmedial line indistinctly double filled in with yellowish and defined on outer side by yellowish, excurved and minutely waved, some white points beyond it on

Fig. 48.—*Paralopha rubiginea*, ♀. ½.

costa; subterminal line white with blackish points beyond it below veins 7, 5, 4, slightly angled outwards below costa, excurved below vein 7 and at middle, then minutely waved; a series of dark striæ just before termen. Hind wing yellowish white, the terminal area suffused with brown narrowing to a point at tornus; cilia with pale points at base and pale tips; the underside yellowish white thickly irrorated with pale brown, the terminal area darker with slight subterminal whitish streaks on the veins and terminal series of dark points.

Hab. Br. N. Guinea, Owgarra (*Meek*), type † ♀ in Coll. Bethune-Baker. *Exp.* 34 millim.

Genus **ODONTODES.**

	Type.
Odontodes, Guen. Noct. iii. p. 50 (1852)	*aleuca.*
Nedroma, Wlk. Proc. Nat. Hist. Soc. Glasg. i. p. 353 (1869)	*aleuca.*
Burdria, Wlk. Char. Undescr. Het. p. 50 (1869)	*aleuca.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd rather long; frons smooth, with tuft of hair above; eyes large, round; antennæ of male minutely ciliated; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen with dorsal crests on 1st and 3rd segments. Fore wing with the apex rounded, the termen evenly curved, crenulate, the tornus with scale-tooth; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Hind wing uniform black-brown with a slight bluish gloss. *metamelæna.*
B. Hind wing with the interspaces paler and somewhat semihyaline to beyond middle ..... *aleuca.*

6369. **Odontodes metamelæna.** (Plate CLXXVII. fig. 25.)

Odontodes metamelæna, Hmpsn. A. M. N. H. (7) xvi. p. 533 (1905).

Head and thorax reddish brown mixed with grey and fuscous; pectus grey; tarsi black with pale rings; abdomen fuscous slightly

mixed with brown and grey, the ventral surface grey irrorated with fuscous. Fore wing rufous suffused with greenish grey; subbasal line double, the inner line indistinct, rufous, curved, from costa to submedian fold; antemedial line double, the outer line indistinct, irregularly waved; orbicular represented by a grey point defined by black; a sinuous rufous medial line, oblique from costa to submedian fold, then inwardly oblique; reniform well developed, with rather irregular brown outline; postmedial line double, dentate, excurved from costa to vein 4, then incurved; subterminal line indistinct, pale, irregularly waved, defined by rufous on inner side, below vein 4 incurved and with broad rufous band before it extending to postmedial line; a terminal series of brown lunules; a fine pale line at base of cilia. Hind wing deep black-brown with a slight blue gloss; the underside with the inner area rather paler, traces of a curved medial line.

Ab. 1. Fore wing with chocolate-brown suffusion on inner half of medial area.

Ab. 2. Fore wing with chocolate-brown suffusion above submedian fold met just beyond postmedial line by chocolate-brown suffusion from apex.

Ab. 3. Fore wing with black suffusion on antemedial area and on terminal area except towards apex.

Ab. 4. Fore wing suffused with fuscous black leaving oblique pale shades at base and from middle of costa and the terminal area pale except towards apex.

Hab. Dutch New Guinea, Kapaur (*Doherty*), 1 ♀ type, Fak-fak (*Pratt*), 1 ♂; Br. N. Guinea, Ekeikei (*Pratt*), 5 ♂, 5 ♀. *Exp.* 48–54 millim.

6370. Odontodes aleuca.

Odontodes aleuca, Guen. Noct. iii. p. 51 (1852); Hmpsn. Moths Ind. ii. p. 400.
Briarda bolinoides, Wlk. xv. 1802 (1858).
Steiria subfasciata, Wlk. xxxiii. 922 (1865).
Steiria quadristrigata, Wlk. xxxiii. 923 (1865).
Nedroma ferruginea, Wlk. Proc. Nat. Hist. Soc. Glasg. i. p. 353 (1869).
Burdria edemoides, Wlk. Char. Undescr. Het. p. 50 (1869).

Head, thorax, and abdomen red-brown mixed with purplish grey; palpi in front, pectus, and ventral surface of abdomen whitish irrorated with brown; tarsi blackish ringed with white. Fore wing red-brown mixed with purplish grey; subbasal line red-brown, curved, from costa to vein 1; antemedial line double, irregularly waved and somewhat excurved; orbicular and reniform defined by brown, the former small, round, touching the antemedial line, the latter large; medial line excurved and sinuous, double below the cell, the lines widely separated; postmedial line double, strongly bent outwards below costa, then dentate, incurved below vein 4; subterminal line greyish defined on inner side by slight dentate red-brown marks, waved, excurved at middle, the area beyond it with slight dark streaks on the veins and in the interspaces; a

terminal series of slight brown lunules and fine pale line at base of cilia. Hind wing dark reddish brown, the interspaces slightly paler except on terminal area; cilia ochreous white, brown at base towards apex. Underside of fore wing with whitish patch on disk enclosing a diffused round brown discoidal patch; hind wing whitish tinged with brown, the terminal area brown.

Ab. 1. Fore wing with white spot between orbicular and reniform.

Ab. 2. *ferruginea*. Fore wing with the inner area greyer.

Ab. 3. *quadristrigata*. Fore wing greyer with a diffused black fascia below median nervure to near end of cell, a black shade beyond medial part of postmedial line, and the subterminal line defined on inner side by blackish.

Fig. 49.—*Odontodes aleuca*, ♂. ½.

Ab. 4. Similar but fore wing with the inner area white to postmedial line, the subterminal line defined on outer side by white except towards apex.

Ab. 5. Fore wing suffused with fuscous except the terminal area.

Ab. 6. Fore wing suffused with fuscous except the inner and terminal areas which are pale reddish brown.

Ab. 7. *subfasciata*. Similar, but fore wing with the lines on the brown area defined by whitish.

Ab. 8. Similar, but fore wing with the costal half suffused with fuscous, the markings of the *quadristrigata* form and the white spot of ab. 1.

Ab. 9. Fore wing with velvety black suffusion on inner side of the outer antemedial line.

Ab. 10. *edemoides*. Fore wing with whitish suffusion beyond the outer antemedial line and diffused dentate black marks before the subterminal line.

Ab. 11. Fore wing with the inner antemedial line defined by white on inner side, the outer on outer side, the postmedial line filled in with white on inner area, and the subterminal line defined on outer side by white except towards apex.

Ab. 12. Fore wing with the basal area much redder, the medial area suffused with bluish white except towards costa, some red-brown beyond postmedial line.

Hab. Congo (*Marsden*), 1 ♂ type *ferruginea*; Punjab (*James, Horne*), 7 ♂, 2 ♀, type *edemoides*, Kulu, Sultanpur (*G. Young*), 1 ♂,

2 ♀, Simla (*Swinhoe*, *Harford*), 5 ♂, 6 ♀, Dalhousie (*Harford*), 3 ♀, Dharmsála (*Hocking*), 7 ♂, 8 ♀, Allahabad, 1 ♀, Manpuri, 1 ♂; Sikhim (*Russell*, *Sadler*, *Lidderdale*, *Möller*), 9 ♂, 3 ♀; Assam (*Bagley*), 1 ♂; Bengal, Calcutta, 1 ♂, 2 ♀: Madras, Nilgiris (*Hampson*), 2 ♂, 1 ♀; Ceylon, Kandy (*Mackwood*), 1 ♂; Burma, Moulmein (*Clerk*), 1 ♂, 2 ♀, types *subfasciata* and *bolinoides*, N. Khyen Hills (*Watson*), 2 ♂, 3 ♀, Up. Burma, Kalewa (*Watson*), 1 ♂, Salin (*Wood*), 1 ♀; Andamans (*Stelling*), 1 ♀; Nicobars, Pulo Condul, 1 ♀; Singapore (*Ridley*), 2 ♀. *Exp.* 34–46 millim.

Genus **STICTOPTERA.**

	Type.
Stictoptera, Guen. Noct. iii. p. 51 (1852)	*cucullioides.*
Dandaca, Wlk. ix. 149 (1856)	*columba.*
Steiria, Wlk. xiii. 1135 (1857)	*subobliqua.*
Ægilia, Wlk. xiii. 1138 (1857)	*describens.*
Minica, Wlk. xiii. 1139 (1857)	*confluens.*
Nagara, Wlk. xxxiv. 1378 (1865)	*vitrea.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd long and somewhat dilated at extremity; frons smooth, with tuft of hair above; eyes large, round; antennæ of male long, ciliated, with large tuft of scales on inner side of basal joint; thorax clothed almost entirely with scales, the patagia with erectile triangular crests on their upper edge, the prothorax with spreading crest, the metathorax with small paired crests; pectus clothed with long hair; tibiæ moderately fringed with hair; abdomen with dorsal crests on 1st and 3rd segments and large ventral fan of scales at base. Fore wing rather long and narrow, the apex rounded, the termen obliquely curved, crenulate; veins 3 and 5 from close to angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. (*Nagara*). Fore wing narrow, the apex much produced in male and the termen very oblique.

A. Fore wing of male with the apex very much produced and the termen extremely oblique.
  a. Fore wing grey slightly tinged with brown ..... *fenestra.*
  b. Fore wing brown slightly tinged with grey ..... *vitrea.*
B. Fore wing of male with the apex less produced and the termen less oblique.
  a. Fore wing with the medial line erect, sinuous ..... *clara.*
  b. Fore wing with the medial line obliquely curved and defined on outer side by whitish ..... *heterogramma.*

6371. **Stictoptera fenestra.** (Plate CLXXVII. fig. 26.)

Stictoptera fenestra, Guen. Noct. iii. p. 53, pl. 14. f. 12 (1852).

♂. Head, tegulæ, and prothorax rufous mixed with some ochreous, the 2nd and 3rd joints of palpi with black, the rest of thorax grey with some fuscous mixed; fore- and mid-legs fuscous, the tarsi ringed with whitish, the hind legs pale grey; abdomen grey with the crests black, the ventral surface white. Fore wing pale grey irrorated with black, a paler somewhat hyaline wedge-shaped patch

between end of cell and submedian fold; subbasal line double, waved, from costa to vein 1; antemedial line double, waved; medial line black, slightly angled outwards in cell, then somewhat sinuous, traces of a similar red-brown line before it and of an incurved dark line beyond it from cell to inner margin; reniform with red-brown centre and slight ochreous annulus defined by blackish; postmedial line double, strongly bent outwards below costa, then very slightly waved, inwardly oblique to vein 5, then incurved and angled outwards at vein 1; subterminal line dentate, black defined on inner side by whitish and on outer by slight red-brown spots and a small whitish spot between veins 3 and 2, traces of another whitish line beyond it, excurved below vein 7 and at middle and with slight black streaks beyond it on the veins; a series of black striæ just before termen, placed somewhat in echelon; cilia intersected with black and chequered with white at tips. Hind wing hyaline, the veins and a rather broad terminal band black; cilia fuscous and white, the underside with patch of fuscous suffusion below middle of costa.

Hab. Cuba, Santiago (*Schaus*), 2 ♂; Brazil, Amazons, Para (*Bates*), 1 ♂, Neu Fribourg, Rio Janeiro (*Wilson*), 1 ♂. *Exp.* 44 millim.

6372. Stictoptera vitrea.

Stictoptera vitrea, Guen. Noct. iii. p. 53 (1852).
Nagara phryganealis, Wlk. xxxiv. 1378 (1865).
Stictoptera fenestra, Druce, Biol. Centr.-Am., Het. i. p. 353 (nec Guen.).

♂. Head and thorax red-brown slightly tinged with grey and with a darker band behind the tegulæ; abdomen fuscous brown, the ventral surface grey. Fore wing dark red-brown tinged with grey, a paler somewhat hyaline wedge-shaped patch between end of cell and submedian fold; subbasal line indistinct, dark, curved, from costa to vein 1; antemedial line double, waved; claviform and orbicular slightly defined on outer side by ferruginous and greyish;

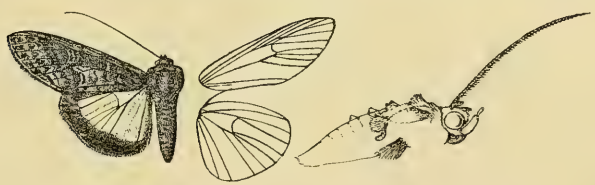


Fig. 50.—*Stictoptera vitrea*, ♂. ½.

reniform with greyish annulus defined by ferruginous; medial line blackish, angled outwards on subcostal nervure, then somewhat oblique and sinuous; postmedial line double, strongly bent outwards below costa, then slightly waved, inwardly oblique to vein 4, then incurved and angled outwards at vein 1; subterminal line dark, dentate, defined on outer side by red-brown spots and a small

whitish spot between veins 3 and 2, traces of a waved greyish line beyond it; a series of black striæ defined on inner side by grey just before termen, placed rather in echelon. Hind wing hyaline, the veins and a rather broad terminal band black; cilia fuscous and whitish; the underside with fuscous mark at middle of costal area.

♀. Hinder part of thorax grey with black streaks on upper edge of patagia; abdomen grey, tinged with brown towards extremity and with black dorsal bar on 3rd segment; fore wing grey irrorated with purple-brown, a purple-brown patch at base of costa, another on costal half of medial area and a band beyond postmedial line, the claviform and orbicular distinctly defined by yellow and black, the reniform with yellowish annulus.

Hab. W. Coast of America (*H.M.S.* '*Herald*'), 1 ♂; Mexico, Jalapa (*Trujillo*), 5 ♀; Costa Rica (*Underwood*), 1 ♂, 1 ♀; Panama, Chiriqui (*Champion*), 2 ♀, Godman-Salvin Coll.; Jamaica (*Gosse*), 1 ♂ type *phryganealis*, Moneague (*Walsingham*), 1 ♂, 1 ♀; at sea 100 miles N.E. of S. Georgia (*H.M.S.* '*Alert*'), 1 ♀. *Exp.* 40–48 millim.

6373. Stictoptera clara.

Noctua clara, Cram. Pap. Exot. iv. p. 133, pl. 358. f. I. (1781).
Stictoptera diaphana, Guen. Noct. iii. p. 53 (1852).
Stictoptera subaurata, Wlk. xiii. 1132 (1857).
Stictoptera phraganoides, Wlk. xv. 1812 (1858).
Nagara steirialis, Wlk. xxxiv. 1379 (1865).

♂. Head and thorax dark red-brown with a purplish gloss; pectus and hind legs greyish; abdomen grey-brown, the crests blackish, the ventral surface grey. Fore wing dark red-brown with a purplish grey gloss; subbasal line indistinct, double, waved, from costa to vein 1; antemedial line indistinct, double, waved; medial line blackish, angled outwards below subcostal nervure and at vein 1; a slight curved red-brown line before it representing the outer edges of claviform and orbicular; reniform defined at sides by red-brown; postmedial line double, strongly bent outwards below costa, inwardly oblique to vein 3, then incurved and angled outwards at vein 1; subterminal line dentate, black defined on outer side by a series of rufous spots; a series of black-brown striæ slightly defined on inner side by grey just before termen, placed somewhat in echelon. Hind wing hyaline, the veins and a broad terminal band black-brown.

♀. Thorax with grey mixed; fore wing much more variegated with pale red-brown, the inner area and bands beyond the ante- and postmedial lines darker, the line defining the claviform and orbicular black, a whitish spot beyond the subterminal line between veins 3 and 2.

Ab. 1. *phryganoides*. Fore wing much greyer.

Hab. Br. Guiana, Potaro R. (*Kaye*), 2 ♂, 3 ♀, Rockstone (*Kaye*), 1 ♀, Demerara (*Rodway*), 2 ♀; Brazil, Amazons, Para

(*Bates*, *Trumbill*, *Austen*), 3 ♀ type *steirialis*, Broves (*Austen*), 1 ♀, Ega (*Bates*), 1 ♀ type *phryganoides*, Rio Negro (*Trail*), 2 ♀. *Exp.* 34–40 millim.

6374. Stictoptera heterogramma, n. sp.
(Plate CLXXVII. fig. 27.)

♀. Head and thorax red-brown mixed with grey and blackish; palpi with blackish rings on 2nd and 3rd joints; pectus and hind legs grey; abdomen grey with the crests blackish. Fore wing olive-grey suffused with dark or reddish brown, the terminal area suffused with red-brown; subbasal line represented by slight double dark striæ from costa; antemedial line double, blackish, waved to vein 1, then very strongly bent inwards to inner margin; medial line black defined on outer side by whitish, obliquely curved; reniform with slight whitish annulus defined by brown; postmedial line double, black filled in with whitish, strongly bent outwards below costa, slightly excurved to vein 6, then very slightly waved, somewhat inwardly oblique to vein 3 where it is slightly bent inwards, then outwardly oblique to inner margin, some purplish suffusion beyond it followed by a dark shade slightly defined on inner side by white and bent inwards at veins 6 and 3, a curved white bar from it below vein 3 to tornus; a slight dark shade slightly defined on inner side by whitish before termen, bent inwards at vein 6 and ending on termen at vein 3; a series of blackish striæ just before termen defined on inner side by whitish. Hind wing hyaline, the veins and a broad terminal band black-brown; cilia chequered with white at tips; the underside with dark bar from middle of costa.

Hab. Br. Guiana, Potaro R. (*Kaye*), 2 ♀ type, Rockstone (*Kaye*), 1 ♀; Fr. Guiana, S. Laurent Maroni (*Le Moult*), 1 ♀. *Exp.* 38–40 millim.

Sect. II. (*Ægilia*). Fore wing narrow, the apex not produced, the costa somewhat concave to beyond middle.

6375. Stictoptera describens.

Ægilia describens, Wlk. xiii. 1139 (1857); Hmpsn. Ill. Het. B.M. ix. p. 105, pl. 163. f. 11; id. Moths Ind. ii. p. 402.
Lophoptera xylinata, Wlk. xxxiii. 920 (1865).
Stictoptera anisoptera, Snell. Tijd. v. Ent. xxiii. p. 88, pl. 6. f. 9 (1880).

♂. Head and thorax dark red-brown, the tegulæ tinged with black; legs black-brown, the tarsi ringed with white; abdomen fuscous brown mixed with greyish. Fore wing brown suffused with purple-grey and slightly irrorated with black, the medial area tinged with blackish; antemedial line double, very strongly angled inwards on the veins and outwards in the interspaces; orbicular defined by blackish except on inner side, narrow and elongate; reniform faintly defined by black points and striæ; medial line indistinct, black, somewhat oblique to vein 2, then inwardly oblique;

postmedial line double, dentate and produced to black points on the veins, excurved to vein 4, then oblique; subterminal line whitish with slight black streaks before and beyond it below costa, then defined on inner side by dentate black marks and on outer by oblique striæ, dentate to vein 3, then incurved; a terminal black

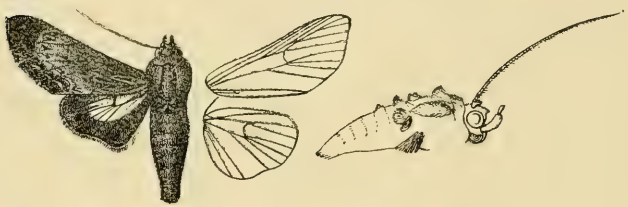


Fig. 51.—*Stictoptera describens*, ♂. ½.

line interrupted by whitish points at the veins. Hind wing black-brown, the lower part of cell and the interspaces below and beyond it hyaline; cilia with fine white line at base and whitish tips.

Ab. 1. Fore wing ochreous suffused with red-brown to beyond the medial line.

Ab. 2. Fore wing with crescentic black-brown patch in and below cell from near base to medial line.

Ab. 3. Fore wing with slightly curved black-brown fascia from base of median nervure to termen below apex.

Ab. 4. Fore wing with fuscous black subbasal spot on median nervure, antemedial spot on vein 1, spots before and beyond the reniform, and a patch at apex.

♀. Head, thorax, abdomen, and fore wing greyish ochreous tinged with brown, the last with a dark band before subterminal line.

Ab. 5. Thorax and fore wing suffused with white.

Ab. 6. (*xylinata*). Patagia and fore wing suffused with black, the latter with the terminal area pale obliquely from apex to inner margin beyond middle.

Ab. 7. Patagia and fore wing to beyond medial line ochreous yellow.

Ab. 8. Similar to ab. 2 of ♂.

Ab. 9. Similar to ab. 3 of ♂.

Ab. 10. Similar to ab. 4 of ♂.

Hab. Bombay, Kanara (*Ward*), 1 ♀ type *xylinata*; Travancore, Pirmád (*Imray*), 1 ♀; Ceylon (*Templeton*), 1 ♂ type, Haldamulla (*Mackwood*), 1 ♂; Singapore (*Ridley*), 10 ♂, 26 ♀; Christmas I. (*Andrewes*), 1 ♂, 1 ♀; Celebes; Br. N. Guinea, Ekeikei (*Pratt*), 1 ♂, 1 ♀, Mt. Kebea (*Pratt*), 1 ♂. *Exp.* 34–46 millim.

Sect. III. Fore wing narrow, the costa and inner margin subparallel.

A. Hind wing with the outer edge of the hyaline area regular; fore wing pale ochreous brown.
  a. Fore wing with the medial line oblique from costa to submedian fold; reniform absent ..... *anæmia*.
  b. Fore wing with the medial line oblique from costa to reniform which is defined by black and rather triangular ... *olivascens*.
B. Hind wing with the outer edge of the hyaline area irregular; fore wing black-brown .... *excivei*.

6376. Stictoptera anæmia. (Plate CLXXVII. fig. 28.)

Stictoptera anæmia, Hmpsn. A. M. N. H. (7) xvi. p. 536 (1905).

♀. Head and thorax whitish tinged with pale brown; frons white; abdomen grey-white with slight dark dorsal crests, the ventral surface white. Fore wing ochreous white; a very oblique wedge-shaped brown mark from costa before middle to submedian fold with a slight erect line from its extremity to inner margin; some slight brownish marks on terminal half of costa; postmedial line represented by a series of dark striæ from vein 7 to inner margin, excurved between veins 5 and 3, then incurved and with some greyish suffusion beyond them; subterminal line whitish, minutely waved, slightly angled outwards at vein 7 and excurved at middle, with small dentate black mark before it and streak beyond it below costa, and slight blackish marks before it and fuscous suffusion beyond it from vein 5 to inner margin; a terminal series of small black lunules defined by white on inner side. Hind wing pale fuscous, the interspaces of basal half hyaline.

Hab. Solomon Is., 1 ♀ type. *Exp.* 30 millim.

6377. Stictoptera olivascens. (Plate CLXXVII. fig. 29.)

Stictoptera olivascens, Moore, Lep. Atk. p. 164 (1882); Hmpsn. Moths Ind. ii. p. 403.

♀. Head, tegulæ, and patagial crests red-brown mixed with blackish and pale olive-brown, the rest of patagia and thorax pale olive-brown; tibiæ and tarsi banded with fuscous; abdomen pale brown, the crest on 3rd segment black. Fore wing pale olive slightly irrorated with brown, a patch of purple-brown at middle of costa, the terminal area suffused with purple-brown except towards apex; subbasal line represented by double dark points on and below costa, the antemedial line by faint double striæ at costa and inner margin; claviform and orbicular represented by minute tufts of black scales at their extremities; reniform defined by black, somewhat triangular; medial line indistinct, dark, oblique from costa to reniform, then inwardly oblique and sinuous; postmedial line hardly traceable, double, strongly bent outwards below costa, then minutely waved and with pale and black points beyond it on the veins, incurved below vein 4; subterminal line whitish with

black patch before and beyond it at costa, slightly bent outwards below vein 7, then very minutely waved; a terminal series of black striæ interrupted by pale points at the veins. Hind wing hyaline, the veins blackish, the terminal area suffused with fuscous brown narrowing to tornus; cilia pale brown at base, white at tips.

Hab. Assam, Khásis, 3 ♀ type. *Exp.* 28–34 millim.

6378. Stictoptera eceicei.

Stictoptera ekeikei, Beth.-Baker, Nov. Zool. xiii. p. 235 (1906).

♂. Head and thorax red-brown mixed with fuscous; palpi black-brown; pectus ochreous white; abdomen fuscous, the ventral surface ochreous white. Fore wing black-brown suffused with silvery grey and with some reddish brown in parts; subbasal line represented by traces of two dark striæ from costa; traces of a waved antemedial line; claviform represented by a black point at extremity, the orbicular slightly defined by black on outer side; reniform faintly defined by some black points; traces of a blackish medial line, oblique from costa to discal fold, then erect; postmedial

Fig. 52.—*Stictoptera eceicei*, ♂. ½.

line hardly traceable, bent outwards below costa and incurved below vein 4; traces of a whitish subterminal line with a more prominent spot at tornus; cilia with a fine whitish line at base. Hind wing fuscous black, the interspaces in, below, and beyond the cell hyaline, the inner area with hyaline streaks above and below vein 1; cilia with a fine white line at base.

Hab. Br. N. Guinea, Ekeikei, type † in Coll. B.-Baker, Mt. Kebea (*Pratt*), 1 ♂ *Exp.* 36 millim.

Sect. IV. (*Stictoptera.*) Fore wing broader and more triangular.

A. Fore wing with the antemedial line very strongly dentate throughout ..... *trajiciens.*

B. Fore wing with the antemedial line angled outwards above inner margin to near the medial line.

a. Fore wing with the tornal area concolorous.

a^1. Hind wing with the hyaline area not extending to far beyond the cell, the terminal half dark..... *signifera.*

b^1. Hind wing with the hyaline area extending to far beyond the cell, the terminal third dark..... *subobliqua.*

b. Fore wing with the ground-colour red-brown or black, the apex, tornal area, and a wedge-shaped patch from inner margin before postmedial line pale ochreous..... *timesia.*

c. Fore wing with the ground-colour grey or ochreous, the costa and tornal area from termen at vein 4 to inner margin before middle brown..... *cucullioides*.

C. Fore wing with the antemedial line not angled outwards above inner margin to near medial line.

a. Hind wing with the hyaline area extending to well beyond the cell, the terminal third dark.

a^1. Hind wing with the inner edge of the terminal band curved inwards at vein 2 ..... *vitiensis*.

b^1. Hind wing with the inner edge of the terminal band not curved inwards at vein 2.

a^2. Fore wing with pale and dark streaks on costal area and in cell ..... *striata*.

b^2. Fore wing without pale and dark streaks on costal area and in cell.

a^3. Fore wing with the tornal area darker than the ground-colour.

a^4. Fore wing with the ground-colour ochreous ..... *ochrota*.

b^4. Fore wing with the ground-colour grey.

a^5. Fore wing with the brown tornal area expanding into a triangular patch below end of cell..... ..... *griseata*.

b^5. Fore wing with the brown tornal area oblique from termen at vein 4 to middle of inner margin ..... *antemarginata*.

b^3. Fore wing with the tornal area not darker than the ground-colour.

a^4. Fore wing with the medial line oblique to subcostal nervure, then straight and erect.

a^5. Eyes very large, the frons very narrow above; fore wing red-brown with small white spots on terminal half ... *macromma*.

b^5. Eyes normal.

a^6. Fore wing without yellow patches at base of costa and on middle of inner margin ..... *biscxualis*.

b^6. Fore wing with yellow patches at base of costa and on middle of inner margin ..... *variegata*.

b^4. Fore wing with the medial line erect, sinuous.

a^5. Fore wing with triangular chocolate-brown patch on base of costa..... *semialba*.

b^5. Fore wing without chocolate-brown patch on base of costa.

a^6. Fore wing with series of black spots on outer edge of postmedial line between veins 5 and 1 ..... *grisea*.

b^6. Fore wing without black spots on outer edge of postmedial line ..... *melanistis*.

c^4. Fore wing with the medial line oblique to vein 2, then erect ..... *ferrifera*.

d^4. Fore wing with the medial line oblique to vein 2, then inwardly oblique and waved ..... *atrifera*.

e^4. Fore wing with the medial line strongly and evenly excurved ..... *svinhœi*.

b. Hind wing with the hyaline area not extending to far beyond the cell, the terminal half dark.
*a*¹. Fore wing not green.
*a*². Fore wing without series of black spots on outer edge of postmedial line.
*a*³. Fore wing without subbasal black spot in submedian fold.
*a*⁴. Fore wing not thickly striated with brown.
*a*⁵. Fore wing almost entirely suffused with black except on terminal area, a black fascia extending to termen below apex — *stygia*.
*b*⁵. Fore wing without black fascia extending to termen below apex.
*a*⁶. Fore wing with whitish spot before subterminal line in submedian fold. — *albipuncta*.
*b*⁶. Fore wing without whitish spot before subterminal line in submedian fold — *microthyris*.
*b*⁴. Fore wing thickly striated with brown ... — *multistriata*.
*b*³. Fore wing with subbasal black spot in submedian fold ..... — *repleta*.
*b*². Fore wing with series of black spots on outer edge of postmedial line ..... — *confluens*.
*b*¹. Fore wing green ..... — *columba*.

6379. Stictoptera trajiciens.

Steiria trajiciens, Wlk. xiii. 1137 (1857); Moore, Lep. Ceyl. iii. p. 122, pl. 158. f. 12; Hmpsn. Moths Ind. ii. p. 402.
Steiria æquilinea, Wlk. Journ. Linn. Soc., Zool. vii. p. 174 (1864).

Head and thorax red-brown mixed with black and some grey; pectus ochreous white; abdomen grey-brown, the ventral surface ochreous tinged with rufous. Fore wing reddish brown suffused with purplish grey; subbasal line blackish, from costa to vein 1, double at costa; antemedial line double, extremely strongly dentate with very long teeth inwards on the veins and outwards in the interspaces; medial line somewhat oblique and straight from costa to postmedial line at submedian fold, then very slightly waved, with ridges of raised blackish scales on and just beyond it at end of cell; postmedial line double, hardly bent outwards below costa, then minutely dentate and produced to black points on the veins, very slightly bent inwards at vein 3, then sinuous, the veins beyond it with dark streaks slightly defined by grey; subterminal line whitish, strongly dentate to vein 4, then less dentate, oblique, and with small white spot at submedian fold; some whitish striæ just before termen from below vein 5 to tornus. Hind wing hyaline white, the veins, terminal area, and inner margin fuscous brown; cilia white with a dark line through them; the underside with dark bar from middle of costa.

Hab. Madras, Nilgiris, 1 ♀; Ceylon, 1 ♂ type; Singapore (*Ridley*), 3 ♂, 1 ♀; Borneo, Sarawak (*Wallace*), 2 ♂, 1 ♀ type *æquilinea*; Br. N. Guinea, Ekeikei (*Pratt*), 1 ♂, Mt. Kebea (*Pratt*), 1 ♂, 1 ♀. *Exp.* 34–38 millim.

6380. Stictoptera signifera.

Steiria signifera, Wlk. xiii. 1136 (1857); Hmpsn. Moths Ind. ii. p. 401.
Gadirtha ferromixta, Wlk. Journ. Linn. Soc., Zool. vii. p. 162 (1864); Swinh. Cat. Het. Mus. Oxon. ii. p. 91.
Steiria humeralis, Wlk. Journ Linn. Soc., Zool. vii. p. 174 (1864).
Minica nigrilinea, Wlk. Journ. Linn. Soc., Zool. vii. p. 176 (1864).
Briarda conturbata, Wlk. Proc. Nat. Hist. Soc. Glasg. i. p. 354 (1869); Waterh. Aid, ii. pl. 178. f. 3.
Stictoptera transversa, Snell. Tijd. v. Ent. xx. p. 30, pl. iii. f. 18 (1877).
Stictoptera pœcilosoma, Saalm. Ber. Senck. Ges. 1880, p. 276; id. Lep. Madag. p. 491, ff. 99. 120.
Stictoptera lætifica, Saalm. Ber. Senck. Ges. 1880, p. 277; id. Lep. Madag. p. 492, f. 100.
Stictoptera semipartita, Saalm. Ber. Senck. Ges. 1880, p. 277; id. Lep. Madag. p. 492, f. 124.
Stictoptera flavobasalis, Saalm. Ber. Senck. Ges. 1880, p. 277.
Steiria subobliqua, Saalm. Lep. Madag. p. 492, f. 121 (nec Wlk.).

♂. Head and thorax red-brown mixed with black; palpi ochreous in front; pectus ochreous; legs blackish, the tarsi ringed with white; abdomen grey-brown, the crests blackish, the ventral surface ochreous white. Fore wing red-brown suffused with purplish grey; subbasal line black, double at costa, waved, ending at vein 1; antemedial line double, waved, angled outwards above inner margin to near the medial line; antemedial line double, waved, excurved below costa and above inner margin; claviform represented by a slight black mark at extremity, the orbicular by some yellow and black scales on outer edge; reniform defined by black and with tuft of black scales in centre; medial line black, incurved below costa, oblique to submedian fold, then sinuous; postmedial line double, bent outwards below costa, then waved, incurved below vein 4, some fuscous on its outer edge between veins 5 and 2; subterminal line indistinct, greyish, waved, with slight black streaks before and beyond it below costa; a terminal series of blackish lunules defined on inner side by grey; cilia with pale points at the veins. Hind wing with the interspaces of basal half hyaline, the veins, terminal half, and inner margin fuscous brown; cilia white at base and tips; the underside with a dark striga from middle of costa.

Ab. 1. Tips of tegulæ, the patagia, and a large patch on basal half of fore wing bright yellow, the patch extending to medial line at median nervure.

♀. Fore wing red-brown to the medial line which is oblique to just above inner margin, the terminal half greyer.

Ab. 2. *nigrilinea*. Fore wing with black streak on median nervure.

Ab. 3. *humeralis*. Fore wing with the base of costa yellow.

Ab. 4. Similar to ab. 1.

Ab. 5. Thorax and basal half of fore wing to the medial line yellow.

Ab. 6. Similar, but fore wing with black streak on median nervure.

Ab. 7. Fore wing with the basal half dark brown tinged with grey.—Amboina.

Ab. 8. *pœcilosoma*. Similar to the normal male.—Madagascar.

Ab. 9. *semipartita*. Fore wing with red patch on basal area and some red beyond postmedial line.—Madagascar.

Ab. 10. *lætifica*. Fore wing red-brown with the outer half of medial area and the terminal area blue-grey.—Madagascar.

Hab. S. Nigeria, Yorubaland, Ogbomoso (*Carter*), 1 ♀, Old Calabar (*Cockburn*), 1 ♀, Sapele (*Sampson*), 1 ♀; Congo (*Marsden*), 1 ♀ type *conturbata*; Madagascar; Andamans, 1 ♀; Singapore (*Ridley*), 6 ♂, 7 ♀; Borneo, Sarawak (*Wallace*), 2 ♂, 2 ♀ type, Kuching (*Shelford*), 1 ♂, 1 ♀, Paku (*Shelford*), 1 ♂; Java; Amboina (*J. J. Walker*), 1 ♀. *Exp.* 30–40 millim.

6381. Stictoptera subobliqua.

Steiria subobliqua, Wlk. xiii. 1136 (1857); Moore, Lep. Ceyl. iii. p. 121, pl. 159. ff. 4 *a*, 4 *b*; Hmpsn. Moths Ind. ii. p. 401.
Steiria variabilis, Moore, Lep. Atk. p. 164 (1882); Moore, Lep. Ceyl. iii. p. 120, pl. 159. f. 5.

♂. (*variabilis*.) Head and thorax brown mixed with ochreous and rufous, the tegulæ with blackish annuli, the patagia with blackish bars; pectus ochreous; tibiæ streaked with blackish; abdomen brown, the crest on 3rd segment blackish, the ventral surface reddish ochreous. Fore wing red-brown tinged with greyish and mixed with some ochreous; subbasal line represented by double black striæ from costa; antemedial line indistinct, double, waved, angled inwards on vein 1 and outwards above inner margin to near medial line; claviform slightly defined by blackish at extremity; orbicular defined by blackish on outer side; reniform slightly defined by blackish and with tuft of black scales in centre; medial line black, slightly sinuous, oblique from costa to submedian fold, then inwardly oblique; postmedial line double, bent outwards below costa, then minutely dentate and produced to black points on the veins, slightly incurved at discal fold, incurved below vein 4; subterminal line indistinct, greyish, minutely waved, with black streaks before and beyond it below the costa, and minute black streaks before it in the interspaces; a series of slight black lunules just before termen defined on inner side by white. Hind wing hyaline, the veins, terminal area, and inner margin black-brown; cilia ochreous white with a slight dark line through them; the underside with slight dark discoidal striga and striga from middle of costa.

Ab. 1. Fore wing with reddish ochreous patch on antemedial area from costa to vein 1.

Ab. 2. Fore wing with the whole basal half reddish ochreous.

Ab. 3. Fore wing with the basal half pale ochreous with a broad black-brown fascia below the cell.

♀. (*subobliqua*.) Head, thorax, and abdomen pale grey-brown; fore wing pale grey-brown suffused with red-brown towards the medial line which is oblique to vein 1.

Ab. 4. The type; fore wing with black-brown streak below the cell to medial line.

Ab. 5. Fore wing with the basal half deeper red-brown with an ochreous patch on antemedial area from costa to submedian fold.

Ab. 6. Fore wing with the basal half much yellower.

Ab. 7. Similar, but fore wing with black streak below the cell.

Ab. 8. Similar, but fore wing with very strong black fascia below the cell.

Ab. 9. Fore wing with fuscous black suffusion on basal area enclosing an ochreous spot below the cell, the fuscous black on outer edge of postmedial line much stronger and emitting a broad fascia to termen below apex.

Ab. 10. Similar, but fore wing with the black on basal area connected on costal area with the black on postmedial and terminal areas.

Hab. Sikhim (*Atkinson*), 1 ♂ type *variabilis*; N. Assam, Dibrugarh (*Ward*), 2 ♂; Ceylon (*Templeton*), 1 ♂, 4 ♀ type; Singapore (*Ridley*), 7 ♂, 15 ♀; Br. N. Guinea, Babooni (*Pratt*), 1 ♂. *Exp.* 34–48 millim.

Larva. Dusky olive-green; head and anal somites yellowish; thoracic somites pinkish; dorsal stripe dusky; a double dusky lateral stripe filled in with pinkish, or the stripes deep black defined by white; a stigmatal series of black spots; 4 pairs of prolegs. Food-plant, *Garcinia*.

6382. **Stictoptera timesia.** (Plate CLXXVII. fig. 30.)

Stictoptera timesia, Swinh. A. M. N. H. (6) xii. p. 218 (1893).

♂. Head and thorax dark red-brown mixed with some ochreous white, the patagia with whitish upper edge; legs streaked with brown; abdomen whitish suffused with brown, the ventral surface yellowish white. Fore wing dark chocolate-brown with a patch of ochreous white on costa before apex, a triangular patch on inner medial area and the inner half of terminal area ochreous white; subbasal line slight, angled outwards below costa and ending at median nervure; antemedial line indistinct, double, waved, angled inwards on vein 1, then strongly outwards to near the medial line above inner margin; claviform represented by an oblique black and white striga at its extremity; orbicular slightly defined by white and blackish on outer side; reniform incompletely defined by black and with tuft of black scales on inner side of centre; medial line usually very indistinct, oblique and slightly sinuous to submedian fold, then bent inwards to inner margin; postmedial line very indistinct, double, bent outwards below costa, then dentate, slightly incurved at discal fold, incurved below vein 4, some fuscous on its outer edge between veins 4 and 2; some brown points

on costa towards apex; subterminal line defined by short brown streaks before and beyond it below costa and slightly by brown on the pale inner half, minutely waved; a series of dark lunules just before termen defined on inner side by whitish. Hind wing hyaline, the veins, terminal area, and inner margin fuscous brown; cilia pale yellow with a dark line through them from apex to vein 2; the underside with dark discoidal striga and striga from middle of costa.

Ab. 1. Patagia and fore wing with the red-brown replaced by fuscous black.

Ab. 2. Fore wing with black streak below median nervure.

♀. Head and vertex of thorax with much more ochreous white; fore wing much redder chocolate-brown, the patch on inner medial area larger, the medial line oblique to vein 1.

Ab. 3. Fore wing with reddish ochreous patch on antemedial area from costa to vein 1.

Ab. 4. Fore wing with the chocolate-brown areas replaced by black.

Hab. Singapore (*Ridley*), 2 ♂, 9 ♀ type. *Exp.* 34–46 millim.

6383. Stictoptera cucullioides.

Stictoptera cucullioides, Guen. Noct. iii. p. 52 (1852); Hmpsn. Moths Ind. ii. p. 401.

♂. Head and thorax rufous mixed with some ochreous, the patagia grey with some rufous on upper edge; pectus ochreous, the legs tinged with brown, the tarsi with fuscous; abdomen grey suffused with red-brown, the ventral surface ochreous. Fore wing grey, the costa red-brown, expanding at apex, the tornal area obliquely red-brown from inner margin before middle to termen below vein 5; subbasal line represented by double dark striæ from

Fig. 53.—*Stictoptera cucullioides*, ♂. ½.

costa; antemedial line double, very indistinct except at costa and inner margin, waved, angled inwards at vein 1 and outwards to near medial line above inner margin; claviform represented by an oblique striga at extremity; orbicular faintly defined on outer side, the reniform faintly defined and with tuft of dark scales in centre; medial line indistinct, sinuous, oblique to submedian fold, then inwardly oblique; postmedial line indistinct, double, bent outwards below costa, then dentate, incurved below vein 4; sub-

terminal line ochreous white, minutely waved, almost obsolete on the grey area, with slight black streaks before and beyond it below costa and slight black mark before it below vein 3; a terminal series of slight black lunules defined on inner side by grey. Hind wing hyaline, the veins, terminal area, and inner margin fuscous black, the cilia white with a dark line through them towards apex; the underside with dark striga from middle of costa.

Ab. 1. Fore wing darker with some fuscous suffusion on basal area.

Ab. 2. Fore wing with the pale area greyish ochreous.

♀. Fore wing grey-white, the medial line oblique to vein 1 and with blackish spot before it below submedian fold.

Ab. 3. Patagia and the pale area of fore wing creamy yellow.

Hab. Ceylon (*Lindesay*), 1 ♀; Malay States, Province Wellesley; Singapore (*Ridley*, *Crowfoot*), 9 ♂, 7 ♀; Java (*Horsfield*), 1 ♂ type; Br. N. Guinea, Mt. Kebea (*Pratt*), 1 ♂. *Exp.* 38–46 millim.

6384. **Stictoptera vitiensis**, n. sp.

Steiria variabilis, Druce, P. Z. S. 1888, p. 223, pl. 13. ff. 3, 4 (nec Moore).

♂. Head and thorax ochreous suffused with rufous; patagia black-brown edged with rufous above; tarsi banded ochreous and black-brown; abdomen grey-brown with reddish ochreous patch at base, the ventral surface white. Fore wing black-brown, the costal area with ochreous and rufous patches at subbasal and antemedial lines and from middle to near apex, the inner margin narrowly ochreous and rufous from near base to the terminal area, which is ochreous and rufous below vein 5; a waved red-brown subbasal line from costa to submedian fold; antemedial line hardly traceable, sinuous; claviform and orbicular represented by slight black striæ at their extremities; reniform defined by blackish and with blackish striga in centre, and reddish ochreous spot on inner edge; medial line hardly traceable, excurved below costa, straight to submedian fold, then oblique and sinuous; postmedial line double, red-brown, bent outwards below costa, then dentate, oblique below vein 4; subterminal line defined by two faint wedge-shaped black marks on inner side below costa, then by slight spots on inner side and a waved line on outer, more distinct and red-brown on the pale area; a series of small dark spots just before termen. Hind wing hyaline, the veins and terminal area fuscous brown; cilia whitish; the underside with oblique medial and postmedial brown bars from costa.

Ab. 1. Patagia pale ochreous tinged with rufous; abdomen with the crest on 3rd segment blackish; fore wing pale ochreous tinged with rufous, the costal area towards apex, the inner margin from middle, and the terminal area below vein 5 red-brown, the markings almost completely obsolete.

Ab. 2. Head, thorax, and fore wing more uniform red-brown, the last with darker streaks in interspaces of costal area.

Ab. 3. Head, thorax, and fore wing purplish grey-brown, the last with black band beyond antemedial line from costa to vein 1; more or less distinct fuscous band between antemedial and medial lines, the reniform blackish, a blackish band beyond the postmedial line from costa to vein 4.

Ab. 4. Head, thorax, and fore wing reddish brown tinged with grey, the last with the lines distinct.

Hab. Fiji, Suva (*Woodford*), 3 ♂. *Exp.* 44–48 millim. Type † ♂, ♀ in Coll. Druce.

*6385. Stictoptera striata. (Plate CLXXVII. fig. 31.)

Stictoptera striata, Hmpsn. Moths Ind. ii. p. 402 (1894).

♂. Head and thorax red-brown, the patagia pale rufous with a few black scales near upper edge; palpi with whitish ring at extremity of 2nd joint; tarsi ringed with whitish; pectus and hind legs pale; abdomen reddish brown tinged with grey, the crests blackish, the ventral surface pale. Fore wing red-brown, the area just below the cell and beyond lower angle to subterminal line paler, the veins with dark streaks, the costal area and cell with slight dark streaks in the interspaces, a pale streak below medial part of costa; an oblique black-brown shade from subterminal line at vein 4 to inner margin before middle; antemedial line hardly traceable, sinuous; a blackish point between bases of veins 4, 3; postmedial line hardly traceable, bent outwards below costa, oblique and waved below vein 4; some slight dark marks on costa toward apex; subterminal line ochreous white defined on outer side by dark brown towards costa where it is somewhat waved, excurved below vein 7 and at middle, incurved and minutely waved below vein 3; a series of black-brown striæ just before termen. Hind wing semi-hyaline whitish, the veins black-brown, the terminal area fuscous brown with a greyish tinge; cilia white with a brown line through them from apex to vein 2; the underside with brownish bar from middle of costa and oblique striga on upper discocellular.

Hab. Sikhim, 7000′ (*Möller*), type † ♂ in Coll. Rothschild. *Exp.* 50 millim.

6386. Stictoptera ochrota, n. sp. (Plate CLXXVII. fig. 32.)

♂. Head, tegulæ, and dorsum of thorax red-brown mixed with black, the patagia ochreous; pectus ochreous; legs brown, the tibiæ fringed with ochreous hair; abdomen fuscous brown, the crest on 3rd segment blackish, the anal tuft and ventral surface ochreous. Fore wing ochreous slightly tinged with rufous, the apical area obliquely red-brown from costa just beyond middle to termen at vein 6, the tornal area obliquely red-brown from middle of inner margin to termen below vein 5; an oblique dark shade from below middle of costa to base of inner margin confluent with an

oblique shade from beyond end of cell; a slight black streak on costa near base; antemedial line hardly traceable, double, waved; medial line hardly traceable except at costa and inner margin, somewhat oblique to vein 2, then inwardly oblique; postmedial line double, indistinct except at costa, bent outwards below costa, then minutely waved, excurved to vein 4, then incurved; subterminal line ochreous, waved, with faint black streaks before and beyond it below costa; some blackish striæ just before termen. Hind wing hyaline, the veins, terminal area, and inner margin black-brown; cilia with a fine white line at base; the underside with slight dark spots at angles of cell.

Hab. Punjab, Simla (*Harford*), 1 ♂ type. *Exp.* 52 millim.

6387. Stictoptera griseata, n. sp. (Plate CLXXVIII. fig. 1.)

Stictoptera subobliqua, Moore, Lep. Ceyl. iii. p. 121 (♂), pl. 159. f. 4 (nec Wlk.).

♀. Head and vertex of thorax rufous, the patagia grey-white; pectus and legs ochreous tinged with rufous, the tarsi suffused with fuscous above; abdomen grey-brown, the ventral surface yellowish white irrorated with brown. Fore wing grey-white; subbasal line represented by double red-brown striæ from costa; antemedial line hardly traceable, double, waved; claviform represented by some blackish at extremity; orbicular and reniform very faintly defined; a red-brown spot on middle of costa and triangular patch on inner area; medial line indistinct, sinuous, oblique to submedian fold, then erect; postmedial line very indistinct, double, bent outwards below costa, then slightly waved, oblique below vein 4; some small red-brown spots on postmedial part of costa and an apical patch, the terminal area red-brown from vein 4 to inner margin where it is conjoined to the medial patch; subterminal line very indistinct, whitish, waved, with slight black streaks before and beyond it below costa; a series of slight blackish lunules just before termen defined on inner side by white; cilia with a fine white line at base. Hind wing hyaline to just beyond middle, the veins, terminal area, and inner margin fuscous brown; cilia ochreous white with a brown line through them.

Ab. 1. Fore wing with strong black streak below median nervure to origin of vein 2.

Hab. Madras, Nilgiris, 1 ♀; Ceylon, 1 ♀; Johore, Batu Pahat (*Ridley*), 1 ♀ type; Singapore (*Ridley*), 1 ♀. *Exp.* 32–42 millim.

6388. Stictoptera antemarginata.

Stictoptera antemarginata, Saalm. Ber. Senck. Ges. 1880, p. 278; id. Lep. Madag. p. 492, f. 125.

♂. Head and tegulæ ochreous mixed with red-brown; dorsum of

thorax red-brown; patagia grey edged with red-brown; pectus ochreous; legs red-brown; abdomen grey-brown, ventrally yellowish white. Fore wing pale grey, the costa, inner margin, and terminal area below vein 4 red-brown mixed with blackish; subbasal and antemedial red-brown spots on costa defined by blackish striæ; reniform red-brown defined by blackish, connected with the costa; traces of a sinuous medial line; postmedial line very indistinct, slightly bent outwards below costa, then dentate, oblique below vein 4; an indistinct lunulate whitish subterminal line with black streak before and beyond it below costa; a terminal series of slight dark lunules. Hind wing hyaline, the veins, terminal area, and inner margin fuscous brown; cilia white with a dark line through them; the underside with dark bar from middle of costa.

Hab. Germ. E. Africa, Dar-es-Salaam (*Neave*), 1 ♂; Cape Colony, Transkei (*Miss F. Barrett*), 1 ♂; Madagascar, Nossi Bei. *Exp.* 40 millim.

6389. Stictoptera macromma.

Stictoptera macromma, Snell. Tijd. v. Ent. xxiii. p. 87, pl. 6. f. 8 (1880).

♂. Head and thorax rufous; palpi white in front; tibiæ and tarsi blackish ringed with white; abdomen grey tinged with rufous, the crest on 3rd segment blackish, the ventral surface white. Fore wing chocolate red-brown to middle of costa and to tornus, the rest of wing dark purple-brown irrorated with white; subbasal line represented by double dark striæ filled in with white from costa; antemedial line with white point at costa, then very indistinct, dark, angled inwards at vein 1; claviform represented by a minute dark streak at its extremity; orbicular with incomplete white annulus defined by blackish, elongate elliptical; reniform defined by blackish, with white bar before it, its annulus broken up into white points, three short white streaks beyond it; medial line very indistinct, oblique to subcostal nervure, then erect and almost straight; postmedial line double filled in with white, broken up into spots and bars, bent outwards below costa, then somewhat dentate, incurved below vein 4, and almost obsolete towards inner margin; some ochreous white points on costa towards apex; subterminal line represented by a series of white lunules, double below vein 7; a series of white bars just before termen; cilia with a series of white spots. Hind wing hyaline, the veins and terminal area fuscous brown; cilia white with a dark line through them from apex to vein 2; the underside with slight dark discoidal spot.

The eyes are very large and the frons extremely narrow above in male. Snellen's figure has the white markings of fore wing much less prominent.

Hab. Celebes; Br. N. Guinea, Mt. Kebea (*Pratt*), 1 ♂. *Exp.* 46 millim.

6390. **Stictoptera bisexualis**, n. sp. (Plate CLXXVIII. fig. 2.)

♂. Head and tegulæ deep chocolate-brown; thorax red-brown tinged with grey, the patagia with a few black scales; tarsi fuscous with pale rings; abdomen grey-brown with dorsal black spot on 2nd segment and bar on 3rd, the anal tuft yellowish at extremity. Fore wing whitish mostly suffused and irrorated with red-brown; subbasal line double, angled outwards below costa and ending at vein 1; blackish points before it at median nervure and vein 1; antemedial line double, waved, with black points on it at vein 1; claviform defined by black at extremity; orbicular and reniform with red-brown centres and whitish annuli defined by brown, the former elongate elliptical; medial line brown, almost straight, slightly incurved at subcostal nervure and angled outwards at submedian fold; postmedial line double, bent outwards below costa, then dentate, incurved below vein 4, some purplish fuscous beyond it followed by a pale line; subterminal line whitish, with a slight dark streak before and beyond it below costa, dentate marks above and below submedian fold and a pale band before it between vein 4 and submedian fold, slightly angled outwards at veins 7, 6, excurved at middle, then incurved; a terminal series of chocolate-brown lunules; cilia with pale points at the veins. Hind wing hyaline, the veins, terminal area, and inner margin fuscous brown; cilia whitish with a brown line through them.

Ab. 1. Vertex of head and base of tegulæ ochreous white; fore wing red-brown suffused with plum-colour, an ochreous and pale olive patch on antemedial area from below costa to vein 1.

♀. Head and tegulæ rufous; thorax and abdomen white slightly mixed with brown and with dorsal series of black points; fore wing white irrorated with red-brown and with whiter patch on terminal area below middle.

Ab. 2. Fore wing with large reddish buff patch on medial area extending to base on inner area.

Hab. Br. N. Guinea, Dinawa (*Pratt*), 1 ♂ type, Mt. Kebea (*Pratt*), 1 ♂, 2 ♀. *Exp.* 48 millim.

6391. **Stictoptera variegata**, n. sp. (Plate CLXXVIII. fig. 3.)

♂. Palpi white in front, black behind; frons black and white; vertex of head and thorax ochreous white tinged with rufous, some black scales on upper edge of patagia; abdomen white dorsally tinged with brown, ventrally with rufous. Fore wing white irrorated with black; a pale rufous patch on basal costal area, the inner margin pale rufous on basal half, expanding into a patch to submedian fold beyond the antemedial line, which is double, black filled in with white, sinuous, obsolete on inner area; orbicular and reniform with white annuli defined by black, the former with black centre, rather elongate elliptical, the latter with pale rufous centre; medial line very indistinct, oblique to subcostal nervure, then erect

and almost straight; postmedial line double, black filled in with white and defined on outer side by blackish, bent outwards below costa, then dentate, incurved below vein 4; subterminal line double, black filled in with white, dentate, with black streaks beyond it in the interspaces to the terminal series of black lunules. Hind wing hyaline, the veins and terminal area fuscous, some white on termen towards tornus; cilia white; the underside with black discoidal striga, points at lower angle of cell, and black striga from middle of costa.

Hab. Malay States, Province Wellesley (*Distant*), Perak (*Doherty*), in Coll. Druce; Borneo, Sarawak (*Meade-Waldo*), 1 ♂ type. *Exp.* 48 millim.

6392. Stictoptera semialba. (Plate CLXXVIII. fig. 4.)

Minica semialba, Wlk. Journ. Linn. Soc., Zool. vii. p. 175 (1864); Hmpsn. Moths Ind. ii. p. 401; Swinh. Cat. Het. Mus. Oxon. ii. p. 91.

Head, tegulæ, and prothorax red-brown; thorax white slightly mixed with brown, the patagia with a few black scales; pectus ochreous white, the legs grey suffused with rufous; abdomen white mixed with fuscous brown, the crest on 3rd segment black. Fore wing white faintly tinged with olive-yellow and irrorated with brown; a triangular chocolate-brown patch on base of costa, with the slight subbasal line from it to vein 1, above which there is sometimes a black spot; antemedial line indistinct, double, waved; claviform represented by a black point at its extremity, the orbicular by a white and black bar on its outer edge; medial line black, sinuous, incurved at the veins; the outer half of medial area purplish red-brown extending on costal area to apex; reniform with incomplete white annulus defined by black and slight tuft of black scales in centre; postmedial line blackish, bent outwards below costa, then waved and defined on outer side by purplish fuscous, incurved at discal fold and below vein 4; subterminal line white slightly defined on each side by brown, with two short black streaks before and beyond it below costa and crossed below vein 2 by a black streak on an oblique purple-brown fascia from the postmedial line, dentate; a series of small rather lunulate black spots just before termen; cilia brownish with a fine pale line at base. Hind wing hyaline, the veins and terminal area broadly fuscous brown; cilia white with a brownish line through them; the underside with slight discoidal lunule and medial and postmedial striæ from costa.

Ab. 1. Fore wing with the red-brown patch at base of costa smaller, the outer medial area not suffused with red-brown.

Ab. 2. Similar, but fore wing with the median nervure and vein 1 to postmedial line streaked with black.

Hab. Assam, Khásis, 1 ♀; Singapore (*Ridley*), 2 ♂; Borneo, 2 ♂, Sarawak (*Wallace*), type † in Mus. Oxon. *Exp.* 46–50 millim.

6393. **Stictoptera grisea.** (Plate CLXXVIII. fig. 5.)

Stictoptera grisea, Moore, P. Z. S. 1867, p. 67; Hmpsn. Moths Ind. ii. p. 401.

Head and tegulæ rufous; palpi streaked with black above; thorax brown tinged with grey, the patagia with some black scales; abdomen grey suffused with fuscous. Fore wing grey suffused in parts with purplish brown and greenish white scales; subbasal line very indistinct, double, sinuous, from costa to vein 1, a rufous patch beyond it on costa with slight black streak below costa; antemedial line very indistinct, double, sinuous; orbicular and reniform large, with slight white annuli defined by black, the former defined on outer side only, round, the latter with some rufous and a slight tuft of black scales in centre; medial line black, sinuous, incurved at the veins; postmedial line blackish, bent outwards below costa, then waved and with series of purplish fuscous spots beyond it in the interspaces, incurved at discal fold and below vein 4; subterminal line grey, slightly defined on inner side by brown and on outer by fuscous, with two slight black streaks before it below costa and crossed by a short streak in submedian fold, waved; a series of rather lunulate black spots just before termen; a fine pale line at base of cilia. Hind wing hyaline, the veins and terminal area broadly fuscous brown; cilia whitish with a fuscous line through them; the underside with slight discoidal lunule and medial and postmedial striæ from costa.

Ab. 1. Patagia with white patch; fore wing with white patch at base, a broad inverted V-shaped patch on antemedial area from costa to vein 1.

Hab. Punjab, Dalhousie, 1 ♀; Sikhim (*Atkinson*, *Sadler*), 3 ♂ type, Singapore (*Ridley*), 1 ♂; Borneo, Sarawak (*Wallace*), 1 ♀. *Exp.* 50–52 millim.

6394. **Stictoptera melanistis**, n. sp. (Plate CLXXVIII. fig. 6.)

♂. Head and thorax black-brown; tegulæ rufous edged with black-brown above; pectus fuscous and grey; fore and mid tibiæ rufous, the tarsi fuscous ringed with white; abdomen black-brown, the ventral surface with grey mixed. Fore wing black-brown glossed with grey, the basal area with large elliptical rufous patch extending in submedian interspace to the medial line; traces of a double waved subbasal line from costa to vein 1; antemedial line indistinct, double, waved, usually with a black mark beyond it representing the claviform; orbicular slightly defined by black on outer side only, the reniform defined by black and with tuft of black scales in centre; medial line black, sinuous; postmedial line double, bent outwards below costa, then dentate, incurved below vein 4; subterminal line indistinct, dark, minutely dentate, defined on inner side by rufous suffusion; a terminal series of black lunules and a fine pale line at base of cilia. Hind wing hyaline, the veins and terminal area broadly black-brown; cilia with fine

white line at base and whitish tips; the underside with slight discoidal lunule and blackish bar from middle of costa.

Ab. 1. Fore wing with the rufous patch extending to postmedial line leaving a blackish patch at middle of costa.

Ab. 2. Fore wing without the rufous patch.

♀. Head and tegulæ ochreous suffused with rufous, the rest of thorax red-brown; abdomen grey suffused with brown; fore wing greenish grey suffused in parts with rufous and purplish fuscous and irrorated with brown.

Ab. 3. Thorax and fore wing ochreous tinged with red-brown.

Hab. Br. N. Guinea, Ekeikei (*Pratt*), 2 ♂, 2 ♀ type, Mt. Kebea (*Pratt*), 2 ♂, 2 ♀. *Exp.* 42–50 millim.

6395. Stictoptera ferrifera. (Plate CLXXVIII. fig. 7.)

Steiria ferrifera, Wlk. Journ. Linn. Soc., Zool. vii. p. 173 (1864); Hmpsn. Moths Ind. ii. p. 401; Swinh. Cat. Het. Mus. Oxon. ii. p. 91; Semper, Reisen Phil., Schmett. ii. p. 536, pl. 60. f. 12.

♂. Head and thorax purplish red-brown; pectus ochreous white; legs red-brown, the tarsi ringed with white; abdomen grey-brown. Fore wing red-brown glossed with purplish grey, the area just beyond and below end of cell paler; subbasal line indistinct, double, waved, from costa to vein 1; antemedial line double, waved; claviform represented by a black point at its extremity; orbicular slightly defined by blackish on outer side only; reniform defined by blackish and with tuft of blackish scales in centre; medial line blackish, almost straight, slightly oblique from costa to submedian fold, then erect; postmedial line double filled in with pale red-brown, bent outwards below costa, then minutely waved and produced to slight points on the veins, incurved below vein 4, a faint whitish line beyond it; subterminal line indistinct, double, dark, minutely dentate, filled in with white between veins 4 and 2, with slight dentate black marks before it below costa and some white irroration before it below veins 4, 3 and beyond it on inner half, slightly incurved between veins 3 and 2; a series of dark striæ just before termen. Hind wing hyaline, the veins, terminal area and inner margin fuscous brown; cilia white with a brown line through them; the underside with slight dark discoidal lunule and striga from middle of costa.

Ab. 1. Fore wing with some greenish yellow on subbasal line, before the reniform, before the postmedial line, and on terminal area below middle.

Ab. 2. Fore wing with broad inverted V-shaped whitish patch between subbasal and medial lines not extending below vein 1.

♀. Head and tegulæ more ochreous; thorax white mixed with red-brown; abdomen grey-white tinged with brown; fore wing white irrorated with brown and suffused in parts with red-brown and purple-brown.

Ab. 3. Fore wing with some greenish yellow suffusion on outer half of medial area and on terminal area below vein 3.

Ab. 4. Fore wing with three black marks on outer edge of subbasal line, the reniform filled in with black and a small black spot on vein 2 before subterminal line.

Ab. 5. Similar but fore wing with the inverted V-shaped whitish patch of ab. 2.

Ab. 6. Fore wing with the antemedial and inner half of medial areas largely suffused with black.

Hab. Singapore (*Ridley*), 8 ♂, 8 ♀; Borneo, Sarawak (*Wallace*), 2 ♀; Philippines, Luzon. *Exp.* 40–46 millim. Type † ♂ in Mus. Oxon.

6396. **Stictoptera atrifera**, n. sp. (Plate CLXXVIII. fig. 8.)

♂. Head and thorax rufous, the patagia and patches on metathorax fuscous black; pectus ochreous; tarsi brown with pale rings; abdomen fuscous, the anal tuft and ventral surface ochreous. Fore wing red-brown largely suffused with fuscous black on basal half, beyond the postmedial line and on apical area; a greenish grey patch at base and an inverted U-shaped white patch between antemedial and medial lines, the outer area not extending to inner margin; subbasal line double, waved, from costa to vein 1; antemedial line indistinct, double, waved; claviform slightly defined by black at extremity; orbicular defined by black on outer side; reniform defined by black and with black striga in centre; medial line black, somewhat oblique from costa to vein 2, then inwardly oblique and waved; postmedial line double, bent outwards below costa, then minutely waved and produced to slight streaks on the veins, somewhat oblique to vein 4, then incurved, another faint dark line beyond it; subterminal line indistinct, dark, minutely dentate, with a minute black streak beyond it below vein 3 and black spot before it at vein 2; some minute black striæ just before termen towards tornus. Hind wing hyaline, the veins, terminal area and inner margin fuscous brown; cilia whitish with a dark line through them; the underside with slight dark discoidal spot and striga from middle of costa.

Ab. 1. Fore wing without the U-shaped white patch, the base and basal half of medial area deep black.

♀. Head and thorax ochreous tinged with rufous, the patagia with a few black scales; abdomen ochreous suffused with brown, the crests black; fore wing with the ground-colour more ochreous, the black suffusion on basal half broken up into patches.

Ab. 2. Patagia with white patches; fore wing greyer and without black suffusion, an inverted U-shaped white patch on antemedial area.

Hab. Singapore (*Ridley*), 1 ♂, 1 ♀ type; Br. N. Guinea, Mt. Kebea (*Pratt*), 1 ♂, Sogeri, 1 ♀. *Exp.* 42–48 millim.

6397. **Stictoptera svinhœi.** (Plate CLXXVIII. fig. 9.)

Stictoptera swinhœi, Beth.-Baker, Nov. Zool. xv. p. 199 (1908).

♂. Head and thorax grey mixed with purplish fuscous, the

tegulæ with ochreous and rufous dorsal patch edged with black, the patagia with some rufous on upper edge; pectus and abdomen grey mixed with fuscous, the tibiæ and tarsi banded with black; the ventral surface of abdomen white except at extremity. Fore wing very thickly striated with black and brown, the basal half suffused with purplish brown except at costa; subbasal line indistinct, sinuous, from costa to vein 1; an indistinct double curved and waved antemedial line; the claviform represented by a tuft of rufous scales at extremity; orbicular defined by black on outer side and with tuft of rufous scales in centre; medial line blackish, almost evenly curved; reniform defined by black, rather triangular, with oblique black striga with white spot before it in centre; postmedial line indistinctly double, dentate, excurved to vein 4, then oblique; subterminal line whitish, with slight black streak before and beyond it below costa and small orange spots before it at discal and submedian folds, slightly excurved below vein 7 and at middle; a terminal series of black lunules. Hind wing hyaline, the veins, costal and terminal areas, and the inner margin fuscous brown; cilia with fine white line at base and white tips; the underside with slight discoidal lunule and medial striga from costa.

♀. Fore wing paler without the dark suffusion on basal half, the tuft of scales on claviform and orbicular and the spots before subterminal line bright orange.

Hab. Br. N. Guinea, Mt. Kebea (*Pratt*), 1 ♂, Dinawa (*Pratt*), 1 ♂, 1 ♀, Owgarra (*Meek*), 1 ♀. *Exp.* 38–42 millim.

6398. **Stictoptera stygia**, n. sp. (Plate CLXXVIII. fig. 10.)

♂. Head, thorax, and abdomen fuscous black with a pale grey band behind the tegulæ; palpi whitish in front, the 3rd joint whitish with a dark ring near extremity; antennæ with the tuft of scales on basal joint whitish at tip; pectus and legs whitish tinged with brown, the tarsi fuscous ringed with whitish; ventral surface of abdomen whitish. Fore wing fuscous black, the costal edge brownish white, the terminal half of costal area with some whitish irroration, a grey patch at apex, the terminal area brownish grey below vein 4; subbasal line represented by a curved black striga from costa; antemedial line hardly traceable, waved; claviform represented by an oblique black striga at extremity on a brownish grey patch below end of cell; orbicular represented by a tuft of raised white scales, the reniform slightly defined by black and with tuft of raised white scales on its inner edge; medial line indistinct, black, somewhat oblique to submedian fold, then sinuous; postmedial line very indistinct, bent outwards below costa, incurved below vein 4 and slightly excurved at vein 1; subterminal line white with slight black streaks before and beyond it below costa; then defined on inner side by brown spots, minutely waved and somewhat excurved at middle; a terminal series of small black spots; cilia fuscous intersected with brownish. Hind wing fuscous

black, the interspaces hyaline white below and just beyond the cell; cilia with a fine white line at base; the underside rather paler.

Hab. Br. N. Guinea, Mt. Kebea (*Pratt*), 1 ♂ type. *Exp.* 36 millim.

6399. **Stictoptera albipuncta**, n. sp. (Plate CLXXVIII. fig. 11.)

♂. Head and thorax red-brown mixed with blackish; abdomen grey-brown, the crests blackish, the ventral surface brownish white. Fore wing black-brown irrorated with white, the basal area, costal area towards apex, and a subterminal patch between veins 6 and 4 red-brown; antemedial line hardly traceable except on inner area, waved; claviform and orbicular slightly defined by black and white scales on outer edge only; reniform faintly defined by a few white scales; medial line indistinct, black, somewhat oblique and very slightly waved; postmedial line double, black filled in by small white lunules except towards costa, waved, incurved below vein 4; subterminal line represented by a series of small white spots with slight black streaks before and beyond them below costa, obsolescent on the reddish patch below vein 6, then defined on inner side by black spots with a prominent white spot before the spot in submedian interspace; a series of black striæ just before termen defined on inner side by slight white lunules; a series of white points at the extremities of the veins. Hind wing fuscous brown, the interspaces below and just beyond the cell semihyaline white; cilia with a fine whitish line at base; the underside with dark medial and postmedial striæ from costa.

Ab. 1. Vertex of head reddish ochreous, pro- and metathorax with ochreous bars; fore wing not irrorated with white and without the red-brown on basal area, the white markings replaced by grey except the white spot before postmedial line.

♀. Fore wing fuscous black to the medial line which is defined on outer side by whitish, the white spot before subterminal line indistinct.

Hab. Br. N. Guinea, Mt. Kebea (*Pratt*), 1 ♂ type, Ekeikei (*Pratt*), 1 ♂, 1 ♀. *Exp.* 46 millim.

6400. **Stictoptera microthyris**, n. sp. (Plate CLXXVIII. fig. 12.)

♂. Head and tegulæ black-brown slightly mixed with reddish ochreous; thorax reddish ochreous with some dark brown scales; abdomen fuscous with some greyish ochreous at base, the ventral surface reddish ochreous. Fore wing ochreous suffused with dark brown, the basal costal area reddish ochreous; an ochreous fascia in and below end of cell and a band from beyond upper angle of cell angled at vein 5, then oblique to inner margin near base and giving off a diffused reddish ochreous fascia to termen from its angle; antemedial line hardly traceable, slightly angled outwards above inner margin; postmedial line very indistinct, double, slightly bent outwards below costa, then minutely waved, slightly incurved at

discal fold and oblique below vein 4; a curved subterminal series of blackish spots with slight pale striæ on their outer edges; a terminal series of minute black lunules defined on inner side by ochreous. Hind wing fuscous brown, with hyaline streaks below and just beyond the cell.

Hab. Dutch N. Guinea, Fak-fak (*Pratt*), 2 ♂ type. *Exp.* 46 millim.

6401. **Stictoptera multistriata**, n. sp. (Plate CLXXVIII. fig. 13.)

♀. Head, tegulæ, and shoulders red-brown mixed with black, the palpi and lower part of frons tinged with grey; thorax grey-white; tibiæ and tarsi blackish ringed with grey; abdomen fuscous, the basal half of dorsum grey-white. Fore wing pale red-brown thickly striated with black-brown; an oblique blackish streak from near base of costa to submedian fold; a semicircular white antemedial mark in cell and oblique band from submedian fold to inner margin, on which it is connected by a streak with a white medial spot with another above it in submedian fold; reniform defined by black and with slight pale annulus, rather conical; postmedial line indistinct, with fuscous black spots on its outer edge below vein 7 and between veins 5 and 1, slightly incurved at discal fold and oblique below vein 4; a faint subterminal blackish shade between discal and submedian folds. Hind wing opalescent hyaline, the veins and terminal area broadly black; cilia with white line at base and white tips; the underside with whitish irroration at middle of costal area.

Hab. Br. N. Guinea, Mt. Kebea (*Pratt*), 1 ♀ type. *Exp.* 32 millim.

6402. **Stictoptera repleta.** (Plate CLXXVIII. fig. 14.)

Steiria repleta, Wlk. Journ. Linn. Soc., Zool. vii. p. 173 (1864); Swinh. Cat. Het. Mus. Oxon. ii. p. 91.
Stictoptera richardi, Pag. JB. Nass. Ver. xxxviii. p. 29, pl. ii. f. 7 (1885).

♂. Head and thorax red-brown mixed with blackish; pectus ochreous white; tarsi ringed with whitish; abdomen grey-brown, the ventral surface ochreous white. Fore wing greyish suffused with brown and with a purplish gloss; a subbasal black striga from costa defined on each side by grey and a round black spot in submedian interspace; antemedial line double, waved, angled outwards above inner margin to near medial line; claviform defined by brown, with yellowish annulus above and some yellowish beyond it; orbicular and reniform with grey annuli defined by black, the former round, connected with the antemedial line; medial line obliquely incurved from below costa to submedian fold where it is angled outwards, then again incurved; postmedial line double, bent outwards below costa, then sinuous, oblique to vein 4, then incurved, another similar less distinct line beyond it; subterminal line pinkish grey defined by brown, oblique to vein 6, then dentate, with black streaks beyond it on veins 4, 3; a series of

brown striæ just before termen. Hind wing hyaline, the veins, terminal area, and inner margin black-brown; cilia with white line at base and white tips; the underside with the costal area greyish with a dark bar at middle.

♀. Head, thorax, and fore wing with the ground-colour ochreous white, the last with the black subbasal spot placed on an ochreous white patch.

Hab. Singapore (*Ridley*), 3 ♂, 1 ♀; Borneo, Sarawak (*Wallace*), type † in Mus. Oxon.; Nias. *Exp.* 32–36 millim.

6403. Stictoptera confluens. (Plate CLXXVIII. fig. 15.)

Minica confluens, Wlk. xiii. 1140 (1857); Hmpsn. Moths Ind. ii. p. 401.

♀. Head and thorax red-brown mixed with whitish; tegulæ fuscous black; palpi white in front; pectus and legs white tinged with red-brown; abdomen greyish, the ventral surface white. Fore wing red-brown mixed with white, the basal half mostly overlaid with thick fuscous-black scales; subbasal line represented by a slight curved black striga from costa; antemedial line hardly traceable, double, waved; the claviform represented by a minute black streak, the orbicular by a black striga on its outer edge; reniform defined by black and with some black scales in centre, its inner edge straight; medial line black, oblique to submedian fold, then erect; postmedial line black defined on inner side by whitish, bent outwards below costa, then dentate, incurved below vein 4, with a series of fuscous black spots on its outer edge below vein 7 and from vein 5 to inner margin, the costa beyond it with white points with minute black streaks between them; subterminal line white, waved, with black streak before and beyond it below costa, then slightly defined on outer side by blackish; a terminal series of small black lunules; a fine white line at base of cilia. Hind wing fuscous brown, the lower part of cell and the interspaces below and just beyond it hyaline; cilia white with a brown line through them; the underside with faint dark striga from middle of costa.

Ab. 1. Metathorax, patagia, and fore wing greenish grey, the last with some purple-brown suffusion on basal half of costa and before the medial line but not overlaid with fuscous black scales.

Hab. S. Nigeria, Lagos (*Strachan*), 1 ♀; hab. ign., 1 ♀ type. *Exp.* 38 millim.

6404. Stictoptera columba. (Plate CLXXVIII. fig. 16.)

Dandaca columba, Wlk. ix. 149 (1856); Hmpsn. Moths Ind. ii. p. 401.
Stictoptera cucullioides, Semper, Reisen Phil., Schmett. ii. p. 536, pl. 60. f. 11 (nec Guen.).

♂. Head and tegulæ rufous, the latter with black patches at base with chocolate-brown patches defined by ochreous above them; palpi white in front; thorax blue-green mixed with red-brown;

pectus and legs whitish tinged with brown, the fore and hind tibiæ greenish barred with brown, the tarsi ringed with white; abdomen fuscous with some green at base of dorsum, the genital tufts rufous, the ventral surface whitish. Fore wing blue-green thickly striated with brown; subbasal line slight, sinuous, from costa to vein 1; antemedial line indistinct, double, waved, unusually near base; claviform represented by a minute black spot; orbicular rufous defined on outer side by black; reniform defined by black and with black point in centre; medial line slightly waved, oblique below submedian fold, the area before it to subbasal line red-brown except towards inner margin; postmedial line slight, black, oblique towards costa, then dentate, oblique below vein 4, with black spots on its outer edge below vein 7 and between vein 5 and inner margin, the costa beyond it with minute alternating black and white streaks; subterminal line represented by a series of slight black spots on its outer edge, with a red-brown mark before it at costa, and slight black streak before and beyond it below costa; a terminal series of small black spots; cilia dark brown mixed with grey. Hind wing fuscous black, the lower part of cell and the interspaces below and just beyond it hyaline; cilia white with a dark line near base; the underside with slight dark striga from middle of costa.

♀. Brighter blue-green.

Ab. 1. Fore wing with the basal area pale ochreous yellow to near medial line with some diffused brownish streaks on it near base.

Hab. N. India (*James*), 1 ♀ type; Johore, Batu Pahat (*Ridley*), 1 ♂; Singapore (*Ridley*), 4 ♂, 7 ♀; Borneo, Kuching (*Shelford*), 1 ♀; Philippines, Cebu. *Exp.* 32–40 millim.

Genus GIGANTOCERAS.

	Type.
Gigantoceras, Holl. Psyche, vi. p. 549 (1893).....	*solstitialis.*

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching about to middle of frons and moderately scaled, the 3rd rather long; frons smooth with large tuft of scales above; eyes large, round; antennæ in both sexes about one and a half times length of fore wing and ciliated; thorax clothed almost entirely with scales, the metathorax with spreading crest; legs extremely elongate and slender, the outer spurs about half the length of inner; abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3 and 5 from close to angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Frons very narrow, the eyes approximated in front.

*6405. Gigantoceras geometroptera.

Gigantoceras geometroptera, Holl. Psyche, vi. p. 550, pl. 21. f. 8 (1893).

♂. Head and thorax greyish tinged with sap-green and brown; frons with black band above; palpi, lower part of frons, and pectus brownish ochreous; tibiæ and tarsi brown, the former whitish at

extremities ; abdomen ochreous brown with the genital tufts whitish. Fore wing greyish suffused with sap-green and brown ; subbasal line indistinctly double with black points on its inner side, from costa to vein 1 ; antemedial line double with black striæ from costa, slightly bent outwards below costa, then minutely waved; medial line slightly waved, with blackish spot on it above vein 1 ; two black discoidal points ; postmedial line double, dentate

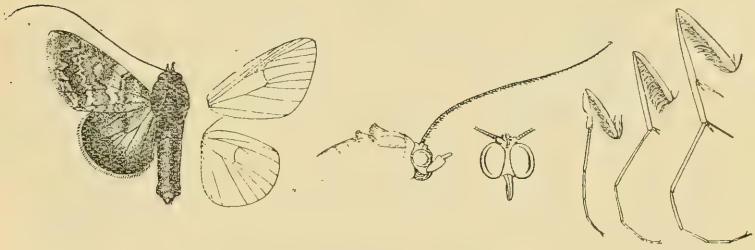


Fig. 54.—*Gigantoceras geometroptera*, ♂. ½.

and produced to black points on the veins, excurved from costa to vein 3, then bent inwards ; subterminal line grey defined on inner side by black-brown, minutely waved, angled inwards below costa, at discoidal fold, and vein 2, with short black streaks beyond it on veins 7, 6, 4, 3, 2 ; a terminal series of small brown lunules defined by a waved silvery grey line. Hind wing whitish suffused with red-brown, an indistinct dark discoidal patch, the terminal area fuscous brown ; cilia whitish ; the underside paler except the discoidal patch and terminal area.

Hab. Gaboon, Ogowe R. (*Good*), type † ♂ in Coll. Holland. *Exp.* 38 millim.

Sect. II. Frons normal, the eyes not approximated.

A. Fore wing with the antemedial line curved and waved..... *solstitialis.*
B. Fore wing with the antemedial line almost straight, not waved ..... *rectilinea.*

6406. Gigantoceras solstitialis.

Gigantoceras solstitialis, Holl. Psyche, vi. p. 549, pl. 21. f. 9 (1893).
Stictoptera crinopis, Hmpsn. A. M. N. H. (7) xvi. p. 533 (1905).

Head, thorax, and abdomen brown mixed with grey ; frons deep black ; tegulæ ochreous at base bounded by a deep black line, then greenish grey ; metathorax with slight black crest, pectus whitish ; legs very long, the tarsi fuscous with pale rings ; abdomen with the slight dorsal crests dark. Fore wing green suffused with brown and irrorated with black, the basal, inner, postmedial and apical areas darker, the discal area paler ; subbasal line double, oblique, black, from costa to vein 1 ; antemedial line double, curved, minutely waved ; orbicular rather U-shaped ; reniform concave towards base and with brown central line forming a spot at lower

outer side; a black streak on vein 2 from cell to the postmedial line, which is double, minutely dentate, excurved from costa to vein 4, then incurved, with a rather dentate black mark beyond it below costa; subterminal line only defined by the area beyond it being paler except at apex, angled outwards at vein 7 and excurved at middle; a terminal series of slight dark lunules. Hind wing with

Fig. 55.—*Gigantoceras solstitialis*, ♂. ½.

the interspaces of basal half pale, the veins and terminal half fuscous; the underside with dark discoidal lunule showing through to upperside.

Ab. 1. Fore wing with white fascia on inner margin from base to antemedial line.

Hab. Gold Coast, Obuassi (*Bergmann*), 1 ♀ type *crinopis*; Gaboon, Ogowé R. (*Good*), type † ♂, ♀ in Coll. Holland. *Exp.* ♂ 30, ♀ 34–36 millim.

6407. **Gigantoceras rectilinea**, n. sp. (Plate CLXXVIII. fig. 17.)

Head and thorax pale green mixed with brownish grey; palpi with some brown; frons with black band above; tegulæ with black band at base; patagia except at base and metathorax black-brown; pectus whitish; legs tinged with brown; abdomen brown, the ventral surface ochreous white with a black line near extremity. Fore wing whitish suffused with pale olive-green and irrorated with silvery and a few black scales; subbasal line black, slightly angled outwards below costa and ending at vein 1; antemedial line double, formed of raised black scales, almost straight, some brownish before it; reniform hardly traceable, elliptical with a bar of raised black scales in centre; a blackish striga from middle of costa and diffused spot on vein 1; postmedial line with double dark striæ from costa, then almost obsolete, strongly bent outwards below costa, then minutely waved and with black points beyond it on the veins, strongly angled inwards below vein 3, then oblique to inner margin; apical area red-brown defined by an oblique black streak from costa to vein 6 near termen; a faint crenulate whitish subterminal line with greenish mark on it below costa, dark mark between veins 3 and 2 and oblique brown bar before it below vein 2; the veins of terminal area streaked with black; a terminal series of blackish lunules slightly defined on inner side by whitish; cilia brownish white. Hind wing semihyaline whitish with broad

fuscous brown terminal band, the inner margin tinged with brown; cilia ochreous white; the underside with some brownish suffusion at middle of costa and striga on upper discocellular.

Hab. Gold Coast, Kumasi (*Whiteside*) 1 ♂ type; S. Nigeria, Ilesha (*Humphrey*), 2 ♂, 1 ♀. *Exp.* 32 millim.

Genus **LOPHOPTERA.**

	Type.
Lophoptera, Guen. Noct. iii. p. 54 (1852)	*squammigera.*
Evia, Wlk. xxvii. 89 (1863)	*ferrinalis.*
Ciasa, Wlk. Journ. Linn. Soc., Zool. vii. p. 165 (1864)	*pustulifera.*

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd short, porrect; frons smooth, with tuft of hair above; eyes large, round; antennæ of male almost simple; thorax clothed almost entirely with scales and without crests; tibiæ moderately fringed with hair; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and slightly crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 form upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the costal area darker than the ground-colour.
  a. Hind wing with the interspaces hyaline-white to beyond the cell.
    a^1. Fore wing with white fascia below the dark area from base of costa along median nervure to beyond the cell ..... *squammigera.*
    b^1. Fore wing with faint whitish tinge below and beyond end of cell ..... *aleuca.*
  b. Hind wing with the interspaces indistinctly semihyaline to beyond the cell ..... *costata.*
B. Fore wing with the costal area not darker than the ground-colour.
  a. Fore wing without green markings.
    a^1. Hind wing hyaline-white, the terminal area black ... *methyalea.*
    b^1. Hind wing with the interspaces clear hyaline to beyond the cell, the veins and terminal area dark.
      a^2. Fore wing with the basal half deep rufous with oblique outer edge ..... *semirufa.*
      b^2. Fore wing with the basal half not rufous.
        a^3. Fore wing without white suffusion on post-medial costal area.
          a^4. Hind wing with the hyaline area tinged with blue ..... *abbreviata.*
          b^4. Hind wing with the hyaline area not tinged with blue.
            a^5. Fore wing with the medial line oblique to submedian fold, then bent inwards to inner margin ..... *litigiosa.*
            b^5. Fore wing with the medial line oblique to submedian fold, then erect.
              a^6. Fore wing with the postmedial line minutely waved ..... *hemithyris.*
              b^6. Fore wing with the postmedial line angled outwards below costa and excurved at middle, but not waved ..... *phæobasis.*

c^5. Fore wing with the medial line erect, excurved below costa and at vein 1.
a^6. Fore wing with the antemedial line excurved.
a^7. Fore wing without white striga before the subterminal line at discal fold ... *illucida.*
b^7. Fore wing with white striga before the subterminal line at discal fold ... *leucostriga.*
b^6. Fore wing with the antemedial line erect, minutely waved ..... *huma.*
d^5. Fore wing with the medial line erect, excurved in and below cell ..... *plumbeola.*
e^5. Fore wing with the medial line oblique to reniform, then erect, the veins of costal area defined by dark streaks ..... *denticulata.*
b^3. Fore wing with white suffusion on postmedial costal area ..... *xista.*
c^1. Hind wing with the interspaces not hyaline.
a^2. Fore wing with silvery grey bands.
a^3. Fore wing with white suffusion on postmedial costal area ..... *phæoxista.*
b^3. Fore wing without white suffusion on postmedial costal area ..... *plumbeifascia.*
b^2. Fore wing with silvery grey suffusion.
a^3. Fore wing with the inner area not bright rufous *chalybsa.*
b^3. Fore wing with the inner area bright rufous ... *ferrinalis.*
c^2. Fore wing without silvery grey bands or suffusion.
a^3. Fore wing with the lines defined by white ..... *stipata.*
b^3. Fore wing with the lines not defined by white.
a^4. Fore wing with the postmedial line bent outwards below costa and incurved or oblique below vein 4.
a^5. Fore wing with the postmedial line strongly angled inwards at discal fold ..... *negretina.*
b^5. Fore wing with the postmedial line not angled inwards at discal fold.
a^6. Fore wing fuscous black, the basal area grey and strongly contrasting ..... *luctuosa.*
b^6. Fore wing with the basal area concolorous.
a^7. Fore wing fuscous brown suffused with grey ..... *quadrinotata.*
b^7. Fore wing bright red-brown ..... *pustulifera.*
b^4. Fore wing with the postmedial line highly dentate, angled inwards at discal fold and incurved below vein 4 ..... *chalybea.*
c^4. Fore wing with the postmedial line oblique from below costa to inner margin.
a^5. Fore wing with the postmedial line slightly angled inwards at discal and submedian folds.
a^6. Fore wing with the antemedial line double, waved ..... *metaphæa.*
b^6. Fore wing with the antemedial line single, oblique.
a^7. Fore wing chocolate-red.
a^8. Fore wing with the reniform defined by brown and with some whitish points on its inner edge ..... *meeci.*
b^8. Fore wing with the reniform absent. *rufa.*
b^7. Fore wing dark brown tinged with bronze-green ..... *buruana.*

b^5. Fore wing with the postmedial line not angled inwards at discal and submedian folds.
a^6. Fore wing with the antemedial line erect, waved ..... *hypenistis.*
b^6. Fore wing with the antemedial line oblique, straight ..... *tripartita.*
b. Fore wing with green markings.
a^1. Fore wing with the inner area pale yellow-green.
a^2. Hind wing with hyaline streaks in the interspaces of basal half ..... *acuda.*
b^2. Hind wing without hyaline streaks in the interspaces of basal half ..... *viridaria.*
b^1. Fore wing with the antemedial area pale yellow-green ..... *glaucobasis.*
c^1. Fore wing with oblique bright green band from base of costa to inner margin, with bar beyond it from costa and oblique antemedial band from below costa to vein 1 ..... *chlorograpta.*

6408. Lophoptera squammigera.

Lophoptera squammigera, Guen. Noct. iii. p. 55 (1852).
Lophoptera vittigera, Wlk. xxxiii. 920 (1865).

Head and tegulæ dark red-brown ; thorax violaceous grey mixed with fuscous; pectus whitish with some rufous in front; legs blackish, the tarsi ringed with white; abdomen blackish with dorsal series of white points. Fore wing violaceous grey suffused with dark brown, the costal area black-brown expanding between ante- and postmedial lines, then oblique to apex, defined below by a yellowish fascia to postmedial line, its lower edge diffused; antemedial line double, waved, from the white fascia to inner

Fig. 56.—*Lophoptera squammigera*, ♂. ½.

margin; claviform represented by a tuft of raised black scales at its extremity, the oribicular by a slight striga from the dark costal area, the reniform by dark striæ from the costal area and points below ; a sinuous brown medial line from vein 2 to inner margin; postmedial line double, hardly traceable on the dark costal area, bent outwards below costa, then waved, incurved below vein 4; two dentate brown subterminal lines defined on inner side by whitish lunules ; a blackish terminal line interrupted at the veins by white points; cilia chequered with whitish at tips. Hind wing black-brown with opalescent hyaline streaks in, below, and beyond

the cell and streak below middle of vein 1; cilia white with some brown at base.

Hab. Madras, Cuddapah, Jammalamaduga (*Campbell*), 1 ♂; Ceylon, Kandy (*Meade-Waldo*), 1 ♀; Australia, 1 ♂ type *vittigera*, Townsville (*Dodd*), 1 ♀. *Exp.* 36–40 millim.

6409. Lophoptera aleuca, n. sp. (Plate CLXXVIII. fig. 18.)

♂. Head and thorax dark brown mixed with some ochreous; pectus whitish; abdomen fuscous brown mixed with grey. Fore wing violaceous grey suffused with brown, the costal area dark brown, its lower edge oblique from postmedial line to apex; antemedial line double, waved, hardly traceable on the dark costal area; medial line dark, oblique from costa to submedian fold, then inwardly oblique; reniform dark brown faintly defined by blackish points, conjoined to the dark costal area; postmedial line double, slightly angled inwards below costa, then strongly bent outwards, then dentate, incurved below vein 4, some whitish points beyond it on costa; two dark dentate subterminal lines defined on inner side by whitish lunules; a terminal series of dark striæ. Hind wing black-brown with opalescent hyaline streaks in, below, and beyond the cell; cilia brown at base, white at tips.

Hab. Queensland, Moreton Bay (*Gibbons*), 1 ♂ type. *Exp.* 38 millim.

6410. Lophoptera costata.

Lophoptera costata, Moore, Lep. Ceyl. iii. p. 123, pl. 159. f. 8 (1885); Hmpsn. Moths Ind. ii. p. 403.

Head, tegulæ, and prothorax red-brown mixed with blackish, the thorax grey pencilled with black; palpi blackish; tegulæ with blackish medial line; pectus whitish mixed with brown; legs brown, the tarsi ringed with whitish; abdomen fuscous brown with dorsal series of whitish and black bars. Fore wing lilacine-grey pencilled with dark brown, the costal area dark red-brown, expanding between ante- and postmedial lines, then oblique to apex, defined below by a yellowish white streak to the postmedial line; antemedial line double, brown, waved, obsolete on costal half; claviform represented by a slight tuft of blackish scales at its extremity, the orbicular by a slight projection from the dark costal area; reniform with its lower part incompletely defined by black-brown; medial line brown, sinuous, obsolete on the dark costal area; postmedial line double, strongly bent outwards below costa, then waved, incurved at discal fold and below vein 4, some pale points beyond it on costa; two dark dentate subterminal lines defined on inner side by whitish; a terminal series of dark striæ defined on inner side by whitish; cilia chequered with grey at tips. Hind wing black-brown, the interspaces in, below, and beyond the cell with semihyaline streaks; cilia white at tips. Underside of fore wing with pale streaks

in, below, and beyond end of cell; hind wing with curved dark postmedial line.

Ab. 1. Fore wing without the whitish streak beyond the costal area.

Ab. 2. Fore wing with diffused white below the costal area.

Hab. W. China, Kia-ting-fu, 1 ♂; Punjab, Kulu, Sultanpur (*G. Young*), 1 ♀, Simla (*Harford*), 1 ♂, Kangra (*Dudgeon*), 2 ♂, Dharmsála (*Hocking*), 5 ♂, 2 ♀; Sikhim (*Möller*), 1 ♀; Ceylon, 2 ♂ type; Singapore (*Ridley*), 2 ♂. *Exp.* 30–42 millim.

6411. **Lophoptera methyalea.** (Plate CLXXVIII. fig. 19.)

Stictoptera methyalea, Hmpsn. Ann. S. Afr. Mus. ii. p. 309 (1902).

Head and thorax fuscous black mixed with some brown and tinged with grey; pectus grey-white; legs whitish suffused with brown, the tarsi fuscous ringed with white; abdomen pale grey, the crests darker, the ventral surface whiter. Fore wing grey suffused with fuscous and some brown, the basal area suffused with black; traces of a double waved subbasal line, from costa to vein 1; antemedial line double, highly waved; claviform represented by a tuft of black scales; medial line blackish, oblique from costa to submedian fold and bent inwards to inner margin; reniform slightly defined by blackish, constricted at middle and extending to submedien fold; postmedial line double, strongly bent outwards below costa, slightly incurved at discal fold, incurved below vein 4 to the reniform, a band of blackish suffusion beyond it except towards costa defined by a sinuous line of raised black scales, then a reddish brown band; subterminal line slight, greyish, somewhat dentate with slight dark streaks beyond it in the interspaces and more prominent streak below costa; a terminal series of blackish striæ. Hind wing hyaline, the costa, inner margin, and terminal area black, the last with rather irregular inner edge; cilia brown at base, white at tips.

Hab. Congo, Katanga, Kambove (*Neave*), 1 ♀; Mashonaland, Salisbury (*Marshall*), 1 ♂ type. *Exp.* 30 millim.

*6412. **Lophoptera semirufa.** (Plate CLXXVIII. fig. 20.)

Lophoptera semirufa, Druce, A. M. N. H. (8) viii. ined.

Head and thorax deep rufous; tarsi dark brown ringed with white; abdomen dark brown with grey segmental rings, the crests on 3rd and 4th segments rufous, the ventral surface white mixed with brown. Fore wing with the basal area deep rufous, its outer edge obliquely curved from costa before middle to inner margin at postmedial line and defined by whitish, the terminal area grey thickly irrorated with dark brown and with some deep red-brown suffusion on apical area and from vein 4 to tornus; subbasal line indistinct, double, from costa to submedian fold; antemedial line indistinct, double, oblique to median nervure, then angled inwards

on vein 1 and outwards above inner margin; reniform defined by blackish, constricted at middle; postmedial line double, blackish, strongly bent outwards below costa, then dentate, some whitish points beyond it on costa; subterminal line whitish, dentate; a terminal series of black striæ defined on inner side by whitish; cilia grey with two fine blackish lines towards base, chequered white and fuscous at tips. Hind wing black-brown, the basal half with hyaline streaks in, below, and beyond cell and above and below vein 1; cilia white at tips; the underside with the basal half grey, the terminal half fuscous, a dark bar from middle of cell and indistinct postmedial line excurved below costa.

Hab. Cameroons, Ja R., Bitje (*Bates*), type † ♂, ♀ in Coll. Druce. *Exp.* 28 millim.

6413. Lophoptera abbreviata. (Plate CLXXVIII. fig. 21.)

Lophoptera abbreviata, Wlk. xxxiii. 921 (1865).

♂. Head and thorax red-brown mixed with some fuscous; tarsi black-brown ringed with whitish; abdomen fuscous brown slightly tinged with grey. Fore wing red-brown slightly tinged in parts with fuscous; subbasal line represented by two slight striæ from costa; antemedial line indistinct, double, dentate, angled outwards above inner margin; claviform and orbicular represented by tufts of blackish scales on their outer edges; reniform indistinctly defined and with points of raised scales on its edges; medial line indistinct, dark, angled outwards in cell and excurved in submedian interspace; postmedial line double, strongly bent outwards below costa, then minutely dentate and oblique, a band of fuscous suffusion on its outer side defined by a series of spots formed of raised pale and black scales, excurved below vein 7 and at middle; subterminal line indistinct, greyish defined on outer side by fuscous suffusion, dentate; a terminal series of slight fuscous lunules; cilia fuscous chequered with rufous at tips. Hind wing black-brown with bluish hyaline streaks in lower part of cell, below and beyond the cell, the streaks above and below vein 6 extending to nearer termen; the inner area with three bluish hyaline streaks extending to well beyond middle; cilia white with some brown at base.

Hab. Br. N. Guinea, Dinawa (*Pratt*), 1 ♂; Australia, 1 ♂ type. *Exp.* 34 millim.

6414. Lophoptera litigiosa.

Apamea litigiosa, Boisd. Faun. Ent. Madag. p. 93, pl. 16. f. 3 (1833).
Lophoptera cristigera, Guen. Noct. iii. p. 55 (1852).
Stictoptera alutacea, Feld. Reis. Nov. pl. 112. f. 4 (1874).
Lophoptera squamulosa, Saalm. Lep. Madag. p. 440, f. 147 (1880).

Head and thorax brown tinged with grey; pectus grey; tarsi blackish ringed with white; abdomen grey-brown, the crest on

3rd segment black, the ventral surface whitish. Fore wing brown suffused with grey; subbasal line double, black, curved, from costa to submedian fold; antemedial line double, irregularly dentate; claviform and orbicular represented by tufts of raised black scales at their extremities; reniform rather incompletely defined by raised black scales; medial line black, oblique and slightly sinuous to submedian fold, bent inwards to inner margin; postmedial line double, strongly bent outwards below costa, then minutely waved and filled in by minute whitish lunules, incurved at discal fold and below vein 4, some pale points beyond it on costa and a series of small pale and blackish spots, incurved below vein 4, the two black spots below costa more distinct; a minutely waved greyish subterminal line with slight black streaks beyond it in the interspaces, the black streak below costa more prominent; a terminal series of black striæ defined on inner side by whitish; cilia with two slight blackish lines through them. Hind wing black-brown, the cell and interspaces below and beyond it hyaline, the inner area with hyaline streaks above and below vein 1 to beyond middle; cilia white at tips; the underside with dark bar from middle of costa and indistinct postmedial line.

Ab. 1. Fore wing darker brown.

Ab. 2. Fore wing grey suffused with fuscous, the medial area paler.

Ab. 3. Fore wing with white points before the tufts of scales representing the claviform, the orbicular and reniform filled in with white.

Ab. 4. Fore wing with band of black suffusion beyond the antemedial line.

Ab. 5. Fore wing rufous to the medial line.

Hab. S. Leone (*Bartlett*), 1 ♂; Gold Coast, Kumasi (*Whiteside*), 1 ♀; S. Nigeria, Lagos (*Dudgeon*), 2 ♀; Br. E. Africa, Eb Urru (*Betton*), 1 ♂, Neugia (*Crawshay*), 2 ♂; Br. C. Africa, Chiromo (*Neave*), 1 ♂; N.E. Rhodesia, E. Luangwa Distr., Petauke (*Neave*), 1 ♂, 1 ♀; Transvaal, White R. (*Cooke*), 1 ♂; Natal, Durban (*Leigh*), 2 ♂; Cape Colony, Transkei (*Miss F. Barrett*), 1 ♀; Madagascar, Forêt d'Ambre (*Meade-Waldo*), 1 ♂. *Exp.* 24–30 millim.

6415. **Lophoptera hemithyris.** (Plate CLXXVIII. fig. 22.)

Stictoptera hemithyris, Hmpsn. A. M. N. H. (7) xvi. p. 534 (1905).

Head, thorax, and abdomen fuscous brown mixed with some grey; pectus mostly grey; abdomen with the dorsal crests dark, the ventral surface whitish. Fore wing dark reddish brown slightly tinged with grey, the basal area rather darker, the discal area paler; a dark elliptical subbasal patch defined by brown from costa to median nervure; a slightly waved antemedial line with striga of raised black scales beyond it from subcostal nervure to submedian fold; a medial line oblique from costa to submedian

fold; reniform moderate, slightly defined by black; postmedial line double, minutely waved, formed of striæ of raised black scales, bent outwards below costa and incurved below vein 3; a similar single line beyond it defined by ochreous on inner side; a fine pale subterminal line, dentate at veins 6, 7 and incurved below vein 3; a terminal series of black striæ. Hind wing with the interspaces of basal half hyaline, the veins and terminal half fuscous; cilia white at tips; the underside greyer.

Hab. Punjab, Manpuri, 1 ♂; Bombay, 1 ♀; Madras, Cuddapah (*Campbell*), 1 ♀ type; Ceylon, Madulsima (*Mackwood*), 1 ♂, Dilyatalawa (*Mackwood*), 1 ♀. *Exp.* 24–26 millim.

6416. **Lophoptera phæobasis.** (Plate CLXXVIII. fig. 23.)

Stictoptera phæobasis, Hmpsn. A. M. N. H. (7) xvi. p. 534 (1905).

♀. Head and thorax fuscous brown mixed with some grey and black; pectus and femora whitish; tarsi fuscous ringed with white; abdomen fuscous with slight whitish segmental lines, a blackish crest on 4th segment, the ventral surface whitish. Fore wing reddish brown, the basal half suffused with black, its outer edge obliquely curved; subbasal line represented by two slight striæ from costa; antemedial line indistinct, waved, defined by whitish on inner side towards inner margin, some striæ of raised black scales beyond it in and below cell; a medial line bounding the dark area, oblique from costa to submedian fold; reniform incompletely defined by black; postmedial line double, bent outwards below costa, incurved at discal fold and below vein 4; subterminal line strongly dentate, forming a dark mark at costa and incurved below vein 4; a minutely waved dark line just before termen on which there is a series of black striæ. Hind wing fuscous with hyaline streaks in the interspaces in, below, and beyond the cell and on middle of inner area; the underside with the inner area whitish.

Hab. Perak, Goping (*Künstler*), 1 ♀ type. *Exp.* 32 millim.

6417. **Lophoptera illucida.** (Plate CLXXVIII. fig. 24.)

Stictoptera illucida, Wlk. xxxiii. 918 (1865); Hmpsn. Moths Ind. ii. p. 403.

Head and thorax brown tinged with grey; pectus whitish; tarsi fuscous ringed with white; abdomen fuscous brown, the ventral surface whitish. Fore wing brown tinged with grey; subbasal line indistinct, double, curved, from costa to vein 1; antemedial line double, minutely waved, with slight tufts of black scales on its outer edge at discal and submedian folds; medial line oblique from costa to discal fold, then incurved and angled outwards at vein 1; reniform with slight whitish annulus defined by black;

postmedial line double, strongly bent outwards below costa, then minutely waved, slightly incurved at discal fold, incurved below vein 4 and oblique to inner margin, some white points beyond it on costa and a series of black striæ defined on inner side by white scales, incurved below vein 4; traces of a whitish subterminal line, slightly angled outwards at veins 7, 6 and ending on termen at vein 3, a black streak beyond it below apex; a terminal series of slight black lunules defined on inner side by white; cilia with two fine black lines near base, chequered fuscous and brownish at tips. Hind wing fuscous brown with hyaline streaks in, below, and beyond the cell; cilia brown at base, white at tips.

Ab. 1. Fore wing mostly suffused with silvery blue.

Ab. 2. Fore wing with black patch on inner area beyond the antemedial line.

Ab. 3. Fore wing with white spot below the cell beyond the medial line.

Ab. 4. Fore wing with oblique yellowish band from inner margin at antemedial line to cell, then bent downwards to submedian fold at postmedial line.

Ab. 5. Fore wing with the whole inner medial area pale yellow.

Ab. 6. Similar, but fore wing with the inner medial area orange-red.

Hab. Punjab (*Horne*), 1 ♂, 1 ♀, Manpuri, 2 ♂, 1 ♀; Sikhim (*Möller*), 1 ♂; Assam, Khásis; Bengal, Pusa (*Mason*), 1 ♂, 5 ♀, Calcutta, 5 ♀; Bombay, Karwar (*Bell*), 1 ♂; Ceylon, Kegalle (*Mackwood*), 1 ♀; Burma, Moulmein (*Clerk*), 1 ♂, 1 ♀ type. *Exp.* 28–34 millim.

6418. **Lophoptera leucostriga.** (Plate CLXXVIII. fig. 25.)

Stictoptera leucostriga, Hmpsn. A. M. N. H. (7) xvi. p 535 (1905).

♂. Head and thorax red-brown; pectus whitish; tarsi fuscous ringed with white; abdomen fuscous brown with some whitish at base, a blackish crest on 4th segment, the ventral surface white. Fore wing red-brown, sometimes with triangular whitish patch on medial area from just above median nervure to inner margin; subbasal line represented by two slight striæ from costa; two antemedial indistinct lines, approximated below cell, then diverging; reniform with slight ochreous annulus defined by blackish; postmedial line double, strongly bent outwards below costa, then minutely waved, below vein 4 recurved to lower edge of reniform, then excurved again; subterminal line black, its medial part defined on inner side by a white striga, slightly angled inwards below costa and incurved below vein 4; some white points on costa towards apex; a terminal series of black striæ defined by whitish on inner side. Hind wing fuscous, the interspaces of basal half hyaline; cilia with a fine pale line at base.

♀. More fuscous brown; fore wing without the whitish patch on

medial area, the two antemedial lines black on inner half, forming a somewhat conical mark.

Hab. Formosa, Takow (*Hobson*), 1 ♀ ; Penang (*S. S. Flower*), 1 ♀ ; Perak, Goping (*Künstler*); Singapore (*Ridley*), 1 ♂, 1 ♀ type. *Exp.* 24–28 millim.

6419. Lophoptera huma. (Plate CLXXVIII. fig. 26.)

Stictoptera huma, Swinh. Fascic. Malay. Zool. i. p. 75 (1903).

♀. Head and thorax brown mixed with fuscous black; palpi rufous ringed with black; pectus reddish ochreous, the tibiæ and tarsi banded with fuscous; abdomen fuscous with dorsal series of black bars on pale triangular patches, the ventral surface white. Fore wing brown suffused with silvery purple; a yellowish white patch on antemedial costal area from near base to antemedial line enclosing a dark spot on costa, the medial area beyond and below the cell to vein 1 yellowish white; subbasal line represented by a slight dark striga from costa; antemedial line indistinct, dark, minutely waved, filled in with whitish below the yellow patch; striæ formed of raised black scales in and below middle of cell and above inner margin; a slightly sinuous medial line; reniform with white annulus defined by black points; postmedial line double filled in with whitish, strongly bent outwards below costa, then minutely waved, incurved below vein 4, some whitish points beyond it on costa and a sinuous line formed by tufts of raised black scales defined on inner side by whitish; subterminal line white, slightly waved, bent inwards at vein 3; a terminal series of black striæ defined on inner side by white; a fine white line at base of cilia. Hind wing black-brown, the interspaces in, below, and beyond the cell hyaline, the inner area with hyaline streaks above and below vein 1 to beyond middle; cilia with a fine white line at base and white tips.

Hab. Siam, Biserat, 1 ♀ type; Singapore (*Ridley*), 1 ♀. *Exp.* 20–22 millim.

6420. Lophoptera plumbeola, n. n. (Plate CLXXVIII. fig. 27.)

Gyrtona chalybea, Butl. P. Z. S. 1883, p. 163; Hmpsn. Moths Ind. ii. p. 403 (nec Wlk. 1864).

Head and thorax dark purplish brown; pectus greyish; tarsi slightly ringed with white; abdomen brown tinged with grey, the ventral surface white irrorated with brown. Fore wing dark reddish brown with a purplish grey gloss; subbasal line indistinct, double, curved, from costa to submedian fold; antemedial line double, waved; claviform and orbicular represented by minute rufous spots with tufts of raised scales on their outer edges; reniform defined by tufts of raised black scales and with rufous spot in centre; medial line dark, excurved in and below cell;

postmedial line double, strongly bent outwards below costa, then dentate, incurved below vein 4, some whitish points beyond it on costa, and a somewhat dentate dark line defined on inner side by whitish scales; subterminal line very slight, whitish defined on outer side by fuscous brown, very slightly angled outwards at vein 7; the veins of terminal area with slight dark streaks; a black terminal line interrupted by white points at the veins; cilia with some white at tips. Hind wing black-brown, the cell and interspaces below and beyond it semihyaline; cilia white at tips.

Hab. Punjab, Simla (*Swinhoe*), 1 ♂, 1 ♀ type, Dharmsála (*Hocking*), 3 ♂, 1 ♀; Sikhim Tibet, Yatung (*Hobson*), 1 ♀; Sikhim (*Möller*), 1 ♂, 1 ♀; Burma, Hsipaw (*de Nicéville*), 1 ♂; Toungoo (*de Nicéville*), 1 ♂; Celebes (*Doherty*), 2 ♂, 2 ♀. *Exp.* 26–32 millim.

6421. Lophoptera denticulata. (Plate CLXXVIII. fig. 28.)

Stictoptera denticulata, Wlk. xxxiii. 919 (1865); Hmpsn. Moths Ind. ii. p. 402.

♀. Head and thorax red-brown mixed with ochreous; tarsi ringed with blackish; abdomen fuscous, the ventral surface white. Fore wing ochreous white tinged with red-brown; the veins defined by slight brown streaks; subbasal line represented by two very oblique brown striæ from costa; antemedial line double, brown, angled outwards below costa, then indistinct and highly dentate; claviform and orbicular represented by minute tufts of raised scales, the reniform defined by a curved black streak above and points of raised black scales below; medial line indistinct, dark, bent outwards below costa to the reniform, then erect and slightly bent inwards to inner margin; postmedial line double, hardly traceable except towards costa and inner margin, strongly bent outwards below costa and incurved below vein 4, some pale points beyond it on costa; subterminal line dark, dentate, defined on inner side by raised whitish scales, with slight dark streaks beyond it in the interspaces; a terminal series of slight black lunules. Hind wing hyaline, the veins and terminal area black-brown; cilia pale brown at base, white at tips.

Hab. Burma, Moulmein (*Clerk*), 1 ♀ type. *Exp.* 34 millim.

6422. Lophoptera xista. (Plate CLXXVIII. fig. 29.)

Gyrtona xista, Swinh. A. M. N. H. (6) xii. p. 264 (1893).

Head and thorax olive-brown, the latter with a leaden gloss; palpi blackish, ochreous in front; pectus grey, ochreous in front; legs fuscous and grey, the tarsi ringed with white; abdomen grey, the ventral surface white. Fore wing grey suffused with silvery purple, the antemedial area and a medial band from discal fold to inner margin pale olive; subbasal line slight, blackish, curved,

from costa to vein 1; antemedial line double, minutely waved; claviform and orbicular represented by striæ of raised black scales; reniform incompletely defined by black and with some brown in centre, narrow; medial line blackish, slightly curved and somewhat oblique; postmedial line double, strongly bent outwards below costa, then minutely waved, slightly incurved below vein 4, some white points beyond it on costa, and a very slightly waved blackish line defined on each side by pale reddish brown; a minutely waved silvery white subterminal line defined on outer side by blackish; a black terminal line. Hind wing black-brown, the interspaces of basal half hyaline; cilia with fine white line at base and white tips.

Hab. Ceylon, Gampola (*Mackwood*), 1 ♂; Singapore (*Ridley*), 6 ♂, 13 ♀ type; Borneo, Kuching (*Shelford*), 1 ♀. *Exp.* 18–28 millim.

6423. **Lophoptera phæoxista**, n. sp. (Plate CLXXVIII. fig. 30.)

♂. Head and tegulæ dark red-brown; thorax pale red-brown; palpi at base, pectus and legs grey-white, the tibiæ blackish at base, the tarsi blackish ringed with white; abdomen grey-brown with the crest on 3rd segment rufous, the ventral surface whitish. Fore wing with the base silvery violaceous grey with a dark subbasal striga from costa; the antemedial area olive-yellow with a silvery grey streak in cell; antemedial line dark, waved, followed by a silvery grey band, then an obliquely curved olive-yellow band with tufts of red-brown scales on it representing the claviform and orbicular; the outer half of medial area silvery violaceous grey; reniform defined by minute black points, constricted at middle; the terminal area red-brown slightly suffused with silvery grey; postmedial line blackish, minutely waved, erect, another similar line beyond it; subterminal line similar but rather more punctiform; cilia dark brown with a leaden grey tinge. Hind wing dark brown; the underside grey tinged with brown, a slight discoidal striga and postmedial line excurved below costa and above inner margin.

Hab. Ceylon, Udagama (*Pole*), 1 ♂ type. *Exp.* 22 millim.

6424. **Lophoptera plumbeifascia.** (Plate CLXXVIII. fig. 31.)

Gyrtona plumbeifascia, Hmpsn. Moths Ind. ii. p. 405 (1894).

Head and thorax dark reddish brown, the latter tinged with leaden grey; palpi black, white at base; pectus and legs white, the fore and mid legs with the base of tibiæ blackish, the tarsi blackish ringed with white; abdomen grey, the crest on third segment black, the ventral surface white. Fore wing olive-yellow; a leaden grey and blackish patch at base from costa to vein 1; a subbasal black point in submedian fold; a leaden silvery antemedial band with the slight double minutely waved black antemedial line on it and the tufts of raised black scales representing the

claviform and orbicular on its outer edge; medial line fine, brownish, very slightly sinuous; reniform represented by four points of raised black scales at its angles and a point in centre, some leaden silvery above it on costa and on middle of inner margin; postmedial line represented by a series of black points defined on inner side by leaden silvery below vein 5 and on outer by a leaden silvery band except at costa, then by a fine very minutely waved brown line with minute black points on it; subterminal line minutely waved, brown with series of black points on it and slightly defined on inner side by leaden silvery; a series of blackish points just before termen. Hind wing brown, the terminal area tinged with fuscous; the underside whitish tinged with brown, a faint curved postmedial line.

Hab. S. Andamans, 1 ♂, 1 ♀ type. *Exp.* 22 millim.

6425. **Lophoptera chalybsa.**

Gyrtona chalybsa, Hmpsn. Ill. Lep. Het. B.M. viii. p. 86, pl. 146. f. 24 (1891).

♂. Head and thorax dark brown mixed with grey; pectus whitish; tarsi fuscous ringed with whitish; abdomen fuscous, the crest on 3rd segment black, the ventral surface whitish. Fore wing brown suffused with silvery grey leaving a triangular patch from medial part of costa to vein 1 browner; subbasal line represented by two black striæ from costa; the antemedial line with two black striæ from costa, then slight, single; claviform and orbicular represented by striæ of raised black scales, the reniform by a small rufous lunule; medial line dark, curved, slightly waved; postmedial line double, strongly bent outwards and obsolescent below costa, incurved at discal fold, incurved and slightly waved below vein 4, another minutely waved blackish line beyond it; a minutely waved dark subterminal line; a series of small black-brown spots just before termen. Hind wing fuscous brown; the underside brownish grey with indistinct sinuous medial and postmedial lines.

Hab. Madras, Nilgiris (*Hampson*), 1 ♂ type. *Exp.* 24 millim.

6426. **Lophoptera ferrinalis.** (Plate CLXXVIII. fig. 32.)

Evia ferrinalis, Wlk. xxvii. 89 (1863).

♀. Palpi, frons, and antennæ black-brown; vertex of head and thorax bright rufous; pectus whitish; legs black-brown, the tarsi ringed with whitish; abdomen dark brown, the ventral surface whitish. Fore wing dark red-brown suffused with silvery purple, the inner area bright rufous from base of costa to postmedial line, with white streak above it at middle and leaving a dark patch at base of inner margin; subbasal line represented by two indistinct dark striæ from costa; antemedial line indistinct, double, waved; minute tufts of raised black scales in and below middle of cell;

reniform slightly defined by raised black scales; a slight medial dark bar from costa; postmedial line double, strongly bent outwards below costa, then dentate, angled inwards at discal fold, incurved below vein 4 and bent outwards to inner margin, some pale points beyond it on costa; subterminal line blackish, angled outwards at veins 7, 6, then bent inwards, oblique to vein 3, then incurved; a terminal series of black striæ with a rufous and yellow triangular mark before it below vein 3 with yellow striæ above and below it; cilia chequered with white at tips. Hind wing black-brown, the cilia white at tips; the underside with faint diffused pale postmedial band.

Hab. Borneo, Sarawak (*Wallace*), 1 ♂ type. *Exp.* 32 millim.

*6427. Lophoptera stipata. (Plate CLXXIX. fig. 1.)

Plusia stipata, Wlk. Journ. Linn. Soc., Zool. vii. p. 70 (1864); Swinhoe, Cat. Het. Mus. Oxon. ii. p. 37, pl. 1. f. 15.

♀. Head and thorax grey-white; palpi blackish at sides; pectus white; legs brown, the tarsi ringed with white; abdomen white dorsally suffused with brown except at base, the crests dark brown at tips. Fore wing whitish mostly suffused with red-brown and irrorated in parts with black; a subbasal white spot on costa crossed by a red-brown line and with black points before, beyond, and below it; antemedial line double, blackish filled in with white, angled outwards below costa, then oblique, with small black spot before it above vein 1 and some white beyond it from cell to inner margin; claviform represented by an oblique black striga of raised scales at its extremity; orbicular a small round white spot defined by brown and with raised tuft of black scales beyond it above median nervure; reniform represented by an oblique black line with diffused whitish patch beyond it; a medial brown striga from costa and double sinuous line filled in with white from cell to inner margin, with tuft of black scales beyond it on vein 1; postmedial line brown defined on inner side by white and on outer side also at costa, oblique from costa to subcostal nervure, then strongly bent outwards, oblique to vein 4, then incurved, some white points beyond it on costa and the veins below costa and from lower angle of cell to the line streaked with white, a tuft of raised black scales beyond it above vein 1; subterminal line whitish defined on inner side by red-brown suffusion and sinuous from costa to vein 4, then obsolete; a terminal series of slight black lunules defined on inner side by a crenulate white line; cilia rufous. Hind wing semihyaline suffused with brown, the terminal area fuscous brown; cilia with whitish lines at base and tips; the underside white tinged with rufous, the veins and terminal area brown.

Hab. Borneo, Sarawak (*Wallace*), type † ♀ in Mus. Oxon. *Exp.* 30 millim.

6428. **Lophoptera negretina.** (Plate CLXXIX. fig. 2.)

Stictoptera negretina, Hmpsn. J. Bomb. Nat. Hist. Soc. xiv. p. 212 (1902).

♀. Head and thorax dark brown tinged with greyish; tegulæ with black medial line; tarsi ringed with grey; abdomen grey banded with fuscous, the crests blackish, the ventral surface brownish white. Fore wing grey-brown irrorated with blackish, the veins streaked with blackish, the basal half of medial area suffused with black; subbasal line represented by a slight curved dark striga from costa; antemedial line double, waved; claviform and orbicular represented by striæ of raised black scales; medial line black, oblique from costa to submedian fold, then slightly angled inwards at vein 1; reniform incompletely defined by raised black scales, its lower extremity rather produced, an oblique striga to it from costa; postmedial line double, oblique from costa to vein 6, then incurved at discal fold and below vein 4, an oblique line beyond it from costa to vein 6; subterminal line indistinct, dark, dentate from costa to vein 3; a terminal series of black striæ. Hind wing fuscous brown, the veins and terminal area rather darker; cilia with a fine pale line at base; the underside rather paler, with indistinct curved medial and postmedial lines.

Hab. Assam, Khásis, 1 ♀ type. *Exp.* 32 millim.

6429. **Lophoptera luctuosa.** (Plate CLXXIX. fig. 3.)

Stictoptera luctuosa, Hmpsn. J. Bomb. Nat. Hist. Soc. xiv. p. 212 (1902).

♀. Head and tegulæ red-brown slightly mixed with grey; thorax brownish grey; tibiæ banded with fuscous; tarsi fuscous ringed with white; abdomen grey dorsally suffused with rufous. Fore wing with the basal area grey suffused with reddish brown and with the slightly sinuous brown antemedial line near its outer edge; a black streak below base of costa; the rest of wing black-brown with a slight greyish gloss; traces of a sinuous blackish medial line; reniform indicated by a few whitish scales on its edges; postmedial line hardly traceable, double, bent outwards below costa, then dentate, oblique below vein 4; traces of a double dark dentate subterminal line with two obliquely placed whitish marks on it below costa and one at submedian fold; a terminal series of black striæ and whitish points at the veins. Hind wing dark red-brown with a faint purplish gloss; cilia whitish at tips; the underside paler with indistinct curved medial and postmedial lines.

Hab. Ceylon (*Mackwood*), 1 ♀ type. *Exp.* 44 millim.

6430. **Lophoptera quadrinotata.** (Plate CLXXIX. fig. 4.)

Gadirtha quadrinotata, Wlk. Journ. Linn. Soc., Zool. vii. p. 162 (1864).
Stictoptera anthyalus, Hmpsn. Moths Ind. ii. p. 403 (1894); Swinh. A. M. N. H. (6) xv. p. 8 (1895).
Stictoptera paranthyala, Holl. Nov. Zool. vii. p. 565 (1900).

Head, thorax, and abdomen fuscous mixed with greyish; pectus

whitish; tibiæ and tarsi ringed with whitish; abdomen with the crests blackish, the ventral surface whitish. Fore wing fuscous brown overlaying purplish grey; subbasal line indistinct, dark, waved, from costa to submedian fold; antemedial line blackish defined on each side by whitish, inwardly oblique, waved; claviform and orbicular represented by striæ of raised black scales; reniform with slight whitish annulus defined by black points and with some whitish beyond it; medial line blackish, excurved in and below cell; postmedial line double filled in with whitish, strongly bent outwards below costa, then dentate, incurved below vein 4, some whitish points beyond it on costa and a dentate line defined on inner side by whitish lunules; subterminal line whitish, dentate, defined on outer side by dark suffusion; a terminal series of black striæ defined on inner side by whitish and with whitish points between them. Hind wing fuscous brown, the cilia with fine whitish line at base and ochreous white tips; the underside brownish grey, a faint discoidal lunule and curved medial and postmedial lines.

Hab. Sikhim, 1800′ (*Dudgeon*), 1 ♀; Assam, Khásis, 1 ♂, 2 ♀ type *anthyalus*; Singapore (*Ridley*), 1 ♂, 1 ♀; Borneo, Sarawak (*Wallace*), type † in Mus. Oxon.; Buru (*Doherty*), type † *paranthyala* in Coll. Holland. *Exp.* 30–36 millim.

6431. **Lophoptera pustulifera.** (Plate CLXXIX. fig. 5.)

Ciasa pustulifera, Wlk. Journ. Linn. Soc., Zool. vii. p. 165 (1864).
Stictoptera cerea, Swinh. A. M. N. H. (6) xix. p. 167 (1897).
Stictoptera brunneipennis, Holl. Nov. Zool. vii. p. 564 (1900).

Head and thorax bright red-brown; pectus and legs fuscous brown with some red-brown mixed; abdomen fuscous brown, the ventral surface whitish. Fore wing bright red-brown, some black-brown at base of inner margin; subbasal line indistinct, double, curved, from costa to vein 1; antemedial line indistinct, double, waved; claviform and orbicular represented by points of raised black scales; reniform with brownish centre and slight whitish annulus defined by blackish; medial line dark, excurved in and below cell; postmedial line double, dark, strongly bent outwards below costa, then dentate and produced to black points on the veins, excurved to vein 4, then incurved; a faint oblique dark shade from costa at medial line to tornus; subterminal line pale defined on inner side by small black spots with raised whitish scales on their inner side, minutely waved and somewhat angled outwards at veins 7, 6; a terminal series of slight black lunules defined on inner side by ochreous; cilia fuscous chequered with ochreous at tips. Hind wing fuscous brown, the cilia with fine pale line at base and chequered with whitish at tips.

Hab. Singapore (*Ridley*), 2 ♂, 4 ♀; Borneo, Sarawak, 1 ♂; Buru (*Doherty*), type † *brunneipennis* in Coll. Holland; Gilolo, 1 ♀ type *cerea*; Br. N. Guinea, Sogeri, 1 ♀. *Exp.* 32–38 millim.

*6432. Lophoptera chalybea.

Gadirtha chalybea, Wlk. Journ. Linn. Soc., Zool. vii. p. 161 (1864); Swinh. Cat. Het. Mus. Oxon. ii. p. 91, pl. iii. f. 9.
Gadirtha polygrapha, Wlk. Journ. Linn. Soc., Zool. vii. p. 162 (1864).

Head, thorax, and abdomen dark red-brown, the last with the crest on 2nd segment whitish at base. Fore wing red-brown with a slight reddish tinge; a curved subbasal brown striga from costa; antemedial line double filled in with reddish ochreous and defined on inner side by reddish ochreous and short black-brown streaks on and below costa and on median nervure, curved, minutely waved; a black spot at middle of cell; medial line oblique and slightly sinuous from costa to submedian fold, then bent inwards to inner margin; reniform rufous slightly defined by black-brown, its lower extremity produced; postmedial line double filled in with rufous, highly dentate, angled inwards at discal fold and incurved below vein 4; subterminal line double filled in with rufous, dentate, strongly bidentate inwards below costa; a terminal series of dark striæ defined by rufous lunules and points at base of cilia. Hind wing dark red-brown, the cilia white at tips; the underside with indistinct medial and postmedial lines, the latter defined on outer side by greyish.

Hab. Borneo, Sarawak (*Wallace*), type † ♀ and type † ♂ *polygrapha* in Mus. Oxon. *Exp.* 48 millim.

6433. Lophoptera metaphæa. (Plate CLXXIX. fig. 6.)

Gadirtha metaphæa, Wlk. Journ. Linn. Soc., Zool. vii. p. 163 (1864).
Stictoptera ferruginea, Hmpsn. A. M. N. H. (7) xvi. p. 535 (1905).

♂. Head and thorax rufous; abdomen rufous tinged with fuscous, the anal tuft ochreous, the ventral surface whitish. Fore wing rufous; a faint double subbasal line from costa to submedian fold, angled inwards below costa; a very indistinct double minutely waved antemedial line with some dark points on it; a slight discoidal lunule defined by brown; a faint double minutely waved postmedial line with some dark points on its outer edge, oblique and slightly incurved at discal fold and in submedian interspace; subterminal line indistinct, ochreous, minutely dentate, defined by slight dark marks on its inner side below costa and at middle and by a complete series on outer; a terminal series of dark striæ; cilia ochreous with dark points at extremity of the veins. Hind wing uniform fuscous brown; the underside rather paler with traces of curved postmedial line and diffused subterminal band.

♀. Much darker; fore wing with complete series of dark spots before subterminal line.

Hab. Borneo, Sarawak (*Wallace*), 1 ♀; Pulo Laut (*Doherty*), 2 ♂ type *ferruginea*; Philippines, Taytai (*Betton*), 1 ♀. *Exp.* 30 millim. Type † in Mus. Oxon.

*6434. Lophoptera meeci. (Plate CLXXIX. fig. 7.)

Stictoptera meeki, Beth.-Baker, Nov. Zool. xiii. p. 235 (1906).

♂. Head and tegulæ chocolate-red with a fulvous dorsal stripe; thorax fulvous; pectus and legs greyish tinged with brown, the fore legs chocolate-brown, the tarsi blackish; abdomen greyish fuscous, the base with some fulvous, the ventral surface ochreous white. Fore wing fulvous suffused with chocolate-brown leaving fulvous bands before the ante- and postmedial lines; two indistinct oblique subbasal lines; antemedial line inwardly oblique, diffused on outer side, with slight white points before it at median nervure and submedian fold; reniform defined by brown and with sinuous outline, some whitish points on its inner edge; a sinuous medial line from cell to inner margin; postmedial line inwardly oblique and minutely waved, angled inwards at discal fold and incurved at submedian fold where there is a diffused dark spot beyond it; subterminal line minutely waved, slightly excurved below vein 7 and at middle; a fine reddish terminal line; cilia grey-brown. Hind wing fuscous brown, the cilia greyish at tips; the underside grey-brown.

Hab. Br. New Guinea, Aroa R. (*Meek*), type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

*6435. Lophoptera rufa. (Plate CLXXIX. fig. 8.)

Stictoptera rufa, Beth.-Baker, Nov. Zool. xiii. p. 235 (1906).

♂. Head and thorax dark chocolate-red; tarsi blackish ringed with grey; abdomen greyish fuscous, ventrally pale grey. Fore wing deep chocolate-red; indistinct inwardly oblique antemedial and medial lines; postmedial and subterminal lines inwardly oblique, minutely waved. Hind wing fuscous brown with a reddish tinge, the cilia grey at tips; the underside grey-brown.

Hab. Br. New Guinea, Aroa R. (*Meek*), type † ♂ in Coll. Rothschild. *Exp.* 32 millim.

*6436. Lophoptera buruana. (Plate CLXXIX. fig. 9.)

Stictoptera buruana, Holl. Nov. Zool. vii. p. 565 (1900).

♀. Head, thorax, and abdomen brown tinged with bronze-green; legs brown, the tarsi with pale rings; pectus and ventral surface of abdomen reddish brown. Fore wing dark brown suffused with bronze-green, a pale silvery green patch at middle of inner area; subbasal line represented by two blackish striæ from costa; antemedial line indistinct, double, minutely waved; medial line blackish, waved; reniform irregular, defined by blackish and with rufous mark in centre; postmedial line double, blackish, minutely waved, incurved at discal and submedian folds; subterminal line silvery green indented by dark streaks on the veins ending in whitish points; a terminal series of black striæ defined on inner side by grey striæ and with whitish points between them on the veins; cilia

dark brown chequered with grey at tips. Hind wing fuscous brown with slight semihyaline streaks in and below lower part of cell; cilia chequered with whitish at tips; the underside brown, paler at base and with traces of double dark medial line on costal area.

Hab. Buru (*Doherty*), type † ♀ in Coll. Holland. *Exp.* 30 millim.

6437. **Lophoptera hypenistis.** (Plate CLXXIX. fig. 10.)

Stictoptera hypenistis, Hmpsn. A. M. N. H. (7) xvi. p. 536 (1905).

Head and thorax dull brown; abdomen fuscous, the ventral surface greyish. Fore wing pale reddish brown, slightly irrorated with fuscous, the terminal area darker; traces of a double, irregularly waved antemedial line and of two irregularly waved medial lines; an indistinct irregular discoidal mark constricted at middle; postmedial line oblique, double filled in with whitish, the inner line indistinct, the outer strong and with a series of black points beyond it on the veins; a slight dark dentate subterminal line; a slightly waved black terminal line; cilia fuscous with a fine pale line at base. Hind wing fuscous, the interspaces paler and semihyaline except on terminal area; cilia with a fine pale line at base; the underside with traces of curved postmedial line.

Hab. Sikhim (*Dudgeon*), 1 ♀; Burma, Hsipaw (*De Nicéville*), 1 ♂ type. *Exp.* 32 millim.

6438. **Lophoptera tripartita.** (Plate CLXXIX. fig. 11.)

Gyrtona tripartita, Swinh. A. M. N. H. (7) ix. p. 84 (1902).

♀. Head, thorax, and abdomen fuscous brown slightly mixed with greyish; palpi at base and pectus in front yellow; fore and mid tibiæ banded with yellow, the tarsi ringed with white; ventral surface of abdomen whitish. Fore wing red-brown; subbasal line indistinct, dark, waved, from costa to vein 1; antemedial line dark, slightly angled outwards below costa, then oblique, defined on each side by whitish to submedian fold, then on inner side only; medial line dark, excurved in and below cell; reniform with slight pale annulus defined by black; postmedial line dark, strongly bent outwards below costa, then oblique, minutely dentate and defined on outer side by whitish, some white points beyond it on costa, and a minutely dentate dark line defined on inner side by whitish lunules; subterminal line whitish defined on outer side by blackish, minutely dentate; a series of whitish striæ just before termen and whitish points at extremities of the veins. Hind wing black-brown, the cilia with a fine pale line at base and whitish tips; the underside greyer, with traces of discoidal lunule and curved medial and postmedial lines.

Hab. Penang (*Flower*), 1 ♀; Perak, Goping (*Künstler*), 1 ♀ type; Borneo, Pulo Laut (*Doherty*), 1 ♀. *Exp.* 30–34 millim.

6439. Lophoptera acuda. (Plate CLXXIX. fig. 12.)

Gyrtona acuda, Swinh. A. M. N. H. (7) xvii. p. 549 (1906).

♀. Head and thorax brown mixed with whitish, some pale blue-green behind antennæ, at tips of tegulæ, and on metathorax; base of palpi and throat greenish white; pectus white; legs brown, the tarsi ringed with white; abdomen brown with pale blue-green segmental bands, the crests darker, the ventral surface white. Fore wing brown with a slight violaceous tinge, the basal area pale blue-green slightly irrorated with rufous, the outer edge running obliquely from costa before antemedial line to middle of vein 1, then along it to postmedial line; subbasal line represented by two red-brown striæ from costa; antemedial line double, red-brown, oblique, waved; minute points of raised black scales at and below middle of cell; reniform with pale blue-green annulus defined by points of raised black scales, constricted at middle and with its lower extremity produced, a streak of greenish suffusion beyond its upper extremity; medial line blackish, oblique, sinuous; post-medial line double, blackish, strongly bent outwards below costa, then minutely waved, incurved at discal fold and below vein 4, some pale points beyond it on costa; subterminal line very indistinct, greyish, excurved at middle, some dark brown before it at middle and a pale greenish band from vein 4 to inner margin, the area beyond it with slight dark streaks in the interspaces; a terminal series of dark brown striæ. Hind wing black-brown, the cell and interspaces below and just beyond it hyaline; cilia whitish at base and tips; the underside with indistinct medial brown bar from costa and curved postmedial line.

Hab. W. Sumatra, Padang, 1 ♀ type. *Exp.* 28 millim.

6440. Lophoptera viridaria. (Plate CLXXIX. fig. 13.)

Stictoptera viridaria, Swinh. A. M. N. H. (7) ix. p. 172 (1902).

♂. Head and tegulæ ochreous; palpi red-brown at sides; frons with lateral brown bars; tegulæ with some white scales and brown lines at middle and near tips; thorax pale yellow-green with some black scales on upper edge of patagia; pectus and legs whitish and brown, the tarsi fuscous ringed with white; abdomen whitish tinged with red-brown and with ventral series of small blackish spots. Fore wing pale yellow-green; a triangular patch of red-brown suffusion from costa, where it extends from subbasal to postmedial line to submedian fold, and a large patch of blackish suffusion from termen, on which it extends from apex to vein 3, to the reniform; subbasal line double, minutely waved, from costa to submedian fold; antemedial line double, waved; claviform a small black spot; orbicular grey defined by black, small, round; reniform narrow with some black and grey on inner edge followed by ochreous white, then rufous, then white lines, the extremity of median nervure streaked with white and grey; postmedial line black,

strongly bent outwards below costa, then dentate, incurved below vein 4, some white on its outer side between veins 4 and 2, and some whitish points beyond it on costa; traces of a minutely waved subterminal line; a terminal series of slight black lunules; cilia blackish with a fine whitish line at base. Hind wing greyish suffused with cupreous brown, the apical area rather darker; cilia whitish with a dark line through them; the underside white, the costal area tinged with ochreous, the terminal area with brown except towards apex, a large dark discoidal spot, diffused crenulate postmedial line except on costal area, and terminal series of black lunules from apex to vein 2.

Hab. Perak, Goping (*Künstler*), 1 ♂ type. *Exp.* 28 millim.

6441. **Lophoptera glaucobasis.** (Plate CLXXIX. fig. 14.)

Gyrtona glaucobasis, Hmpsn. A. M. N. H. (7) xvi. p. 538 (1905).

♀. Head and thorax reddish brown mixed with whitish; frons, pectus, and legs whitish; the tarsi fuscous with pale rings; abdomen grey tinged with fuscous, the ventral surface white. Fore wing reddish brown mostly suffused with glistening glaucous grey and sparsely irrorated with black, the antemedial area pale glaucous green; antemedial line double with striæ of raised black scales on its edges, obliquely curved; reniform very indistinctly defined by raised black scales on its edges, constricted at middle; postmedial line double, defined by striæ of raised black scales on its edges, those on outer side strong, slightly bent outwards below costa and excurved at middle, with traces of another minutely waved line beyond it; subterminal line grey defined by slight blackish marks on outer side, somewhat dentate and angled outwards at veins 7 and 3, 4; a slight glaucous line before termen; cilia with a series of minute black points. Hind wing uniform fuscous; the underside rather paler with indistinct curved postmedial line.

Hab. Pulo Laut (*Doherty*), 1 ♀ type. *Exp.* 22 millim.

6442. **Lophoptera chlorograpta.** (Plate CLXXIX. fig. 15.)

Gyrtona chlorograpta, Hmpsn. A. M. N. H. (7) xvi. p. 538 (1905).

♀. Head and thorax grey mixed with fuscous and brown; palpi blackish at sides; tegulæ with medial black line; abdomen fuscous, the ventral surface whitish. Fore wing grey suffused with brown and fuscous leaving the costal half of wing except on basal area paler; an oblique bright green band from base of costa to inner margin and a subbasal bar from costa to cell; an antemedial green band from subcostal nervure to vein 1, its edges defined by striæ of raised black scales; a diffused dark spot on middle of costa and traces of a fine irregularly waved medial black line; a fine minutely waved postmedial line incurved between vein 4 and submedian fold, with another indistinct waved line beyond it; a minutely dentate

white subterminal line defined by black on outer side and with blackish patch before it on costa ; a series of small black spots just before termen. Hind wing uniform fuscous; the underside rather paler.

Hab. Singapore (*Ridley*), 1 ♀ type. *Exp.* 22 millim.

Genus **NIGRAMMA**.

	Type.
Nigramma, Wlk. xxvii. 77 (1863)	*quadratifera.*
Clina, Wlk. xxxi. 257 (1864)	*lapidaria.*
Chuduca, Wlk. Journ. Linn. Soc., Zool. vii. p. 164 (1864)	*pyraloides.*

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching about to vertex of head and slightly fringed above by hair towards extremity, the 3rd moderate; frons smooth with tuft of hair above; eyes large, round; thorax clothed almost entirely with scales, the prothorax with sharp ridge-like crest; tibiæ slightly fringed with hair; abdomen without crests. Fore wing long and narrow, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Antennæ of male with long cilia.

A. Hind wing of male with a bladder-like vesicle at base of costa with a ridge of large scales below it on underside.

6443. **Nigramma lophophora**, n. sp.

♂. Head and thorax dark brown mixed with red-brown and some greyish ; pectus whitish ; legs and abdomen grey-brown, the latter with the ventral surface whitish. Fore wing dark reddish brown tinged with grey; antemedial line indistinct, waved, slightly defined on each side by red-brown ; medial line indistinct, waved;

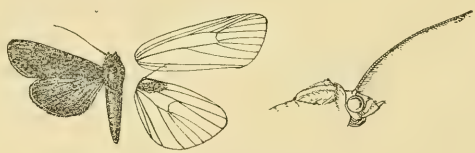


Fig. 57.—*Nigramma lophophora*, ♂. ½.

a slight tuft of red-brown scales at lower angle of cell ; postmedial line indistinct, double, strongly bent outwards below costa, then dentate, strongly incurved below vein 4 to below end of cell ; subterminal line indistinct, greyish, dentate. Hind wing dark brown, the interspaces somewhat paler towards base ; a fine greyish line at base of cilia.

Hab. Travancore, Pirmád (*Mrs. Imray*), 1 ♂ type. *Exp.* 28 millim.

B. (*Nigramma.*) Hind wing of male with slight fringe of hair on base of costa.
  a. Hind wing uniformly suffused with brown ..... *quadratifera.*
  b. Hind wing semihyaline yellowish-white, the terminal half suffused with brown ..... *longipennis.*

6444. Nigramma quadratifera.

Nigramma quadratifera, Wlk. xxvii. 77 (1863).
Gyrtona dorsalis, Wlk. xxvii. 98 (1863); Moore, Lep. Ceyl. iii. p. 125, pl. 158. ff. 10, 11; Hmpsn. Moths Ind. ii. p. 406.
Othora includens, Wlk. xxxiii. 909 (1865).
Ariola bryophilina, Feld. Reis. Nov. pl. 120. f. 10 (1874).

♂. Head and thorax dark reddish brown mixed with greyish; pectus greyish; tarsi with pale rings; abdomen grey-brown with darker dorsal patches, the ventral surface whitish. Fore wing red-brown tinged with grey; antemedial line indistinct, double, slightly angled outwards below costa, then oblique; an indistinct curved medial line; reniform indistinctly defined by blackish and with tuft of red-brown scales in centre; postmedial line indistinct, double at costa, bent outwards below costa, strongly incurved below vein 4 to below end of cell, some alternating blackish and pale spots beyond

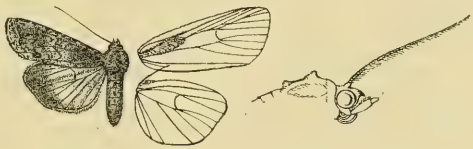


Fig. 58.—*Nigramma quadratifera*, ♂. ½.

it on costa; subterminal line grey defined on inner side by a dark brown band with slight black marks before it at discal and submedian folds, slightly waved and somewhat angled outwards at veins 4, 3; a terminal series of small black-brown lunules; cilia grey mixed with dark brown. Hind wing fuscous brown, the interspaces of basal half somewhat paler; cilia brownish at base, whitish at tips; the underside whitish tinged with brown, the terminal area suffused with brown, a brown discoidal spot and rather diffused curved postmedial line. Retinaculum with fringe of large scales.

Ab. 1 (*dorsalis*). Fore wing with obliquely placed black spots on median nervure and vein 1 beyond the antemedial line.

Ab. 2 (*includens*). Fore wing with the antemedial and medial lines deep black, approximated below costa and at inner margin and enclosing a black patch in the cell.

♀. Head and thorax with white mixed; fore wing white irrorated with brown, the markings more distinct.

Ab. 3. The type, corresponding to ab. *includens* ♂.

Ab. 4. Corresponding to ab. *dorsalis* ♂, the black spots placed on a red-brown band narrowing towards costa.

Hab. Ceylon (*Templeton*), 3 ♂, 2 ♀, type and types *dorsalis* and

includens, Pundaloya, Dickoya (*Green*), 7 ♂, 15 ♀. *Exp.* 30–36 millim.

6445. **Nigramma longipennis**, n. sp. (Plate CLXXIX. fig. 16.)

♂. Head and thorax red-brown mixed with black and some grey; pectus whitish; abdomen grey with some black scales at base, the ventral surface tinged with fuscous except at base. Fore wing red-brown suffused in parts with purple and with some dark irroration; antemedial line indistinct, double, waved; reniform faintly defined by blackish; postmedial line formed by black points, bent outwards below costa and incurved below vein 4; an indistinct dentate whitish subterminal line with dark streaks beyond it in the interspaces; a blackish terminal line. Hind wing semihyaline yellowish white, the terminal half suffused with brown; cilia white tinged with brown; the underside with indistinct diffused discoidal spot and curved postmedial line. Retinaculum normal.

Hab. Br. N. Guinea, Owgarra (*Meek*), 1 ♂ type. *Exp.* 36 millim.

Sect. II. (*Clina.*) Antennæ of male minutely ciliated; hind wing with slight fringe of hair at base of costa.

A. Fore wing with the inner area not bright rufous.
  a. Fore wing without purple-grey suffusion on basal and inner areas.
    a^1. Fore wing without diffused whitish fascia from base through the cell to termen.
      a^2. Fore wing not white tinged with olive.
        a^3. Fore wing with the medial line sinuous.
          a^4. Fore wing dark brown mixed with purplish grey.
            a^5. Fore wing with more or less distinct greenish white patch at middle of vein 1 ..... *pyraloides.*
            b^5. Fore wing without greenish white patch at middle of vein 1.
              a^6. Fore wing without small dentate black marks before subterminal line ..... *subfasciata.*
              b^6. Fore wing with small dentate black marks before subterminal line ..... *todara.*
          b^4. Fore wing red-brown or ochreous in tone ... *polymorpha.*
        b^3. Fore wing with the medial line straight, erect; colour pale clay-brown ..... *lapidaria.*
      b^2. Fore wing white tinged with olive ..... *perlignealis.*
    b^1. Fore wing with diffused whitish fascia from base through the cell to termen ..... *dialeuca.*
  b. Fore wing with purple-grey suffusion on basal and inner areas ..... *purpurascens.*
B. Fore wing with the inner area bright rufous ..... *albicans.*

6446. **Nigramma pyraloides.** (Plate CLXXIX. fig. 17.)

Chuduca pyraloides, Wlk. Journ. Linn. Soc., Zool. vii. p. 165 (1864); Swinh. Cat. Het. Mus. Oxon. ii. p. 93.
Gyrtona albodentata, Moore, Lep. Atk. p. 165 (1882); Hmpsn. Moths Ind. ii. p. 403.
Lophoptera kheili, Pag. JB. Nass. Ver. xxxviii. p. 30, pl. 1. f. 3 (1885).

Head and thorax fuscous brown mixed with purplish grey, the tegulæ and dorsum of thorax often with rufous mixed, the tegulæ with black medial line; tarsi ringed with white; abdomen fuscous brown, the ventral surface whitish. Fore wing fuscous brown with a purplish grey gloss; subbasal line indistinct, waved, from costa to vein 1; antemedial line double, dentate, a rufous point on it in cell; medial line minutely waved; a more or less distinct diffused greenish white patch at middle of vein 1; reniform faintly defined by blackish, usually with rufous point in centre; postmedial line formed by slight dentate black marks with greyish lunules on their inner side, bent outwards below costa and oblique below vein 4, some minute white points beyond it on costa and a dentate blackish line; subterminal line white slightly defined on outer side by black, minutely dentate; a terminal series of small black spots defined on inner side by whitish. Hind wing fuscous brown, the interspaces of basal half whitish; cilia with fine white line at base and whitish tips.

Hab. Assam, Khásis, 1 ♂, 1 ♀ type *albodentata*; Singapore (*Ridley*), 11 ♂, 16 ♀; Borneo, Sarawak (*Wallace*), type † in Mus. Oxon.; Nias. *Exp.* 26–28 millim.

6447. **Nigramma subfasciata.** (Plate CLXXIX. fig. 18.)

Othora subfasciata, Wlk. xxxiii. 907 (1865); Hmpsn. Moths Ind. ii. p. 405.

Head and thorax fuscous brown mixed with grey, the tegulæ at tips and prothorax with a black or rufous patch; pectus whitish; tarsi brown ringed with white; abdomen grey-brown, the ventral surface whitish. Fore wing fuscous brown mixed with grey; antemedial line indistinct, sinuous; medial line indistinct, curved; reniform faintly defined by fuscous and with tuft of white and rufous scales in centre; postmedial line indistinct, bent outwards below costa, incurved at discal fold, angled outwards at vein 4, then strongly incurved, some whitish points beyond it on costa and blackish spots at discal fold and above and below vein 2; subterminal line whitish defined on outer side by brown, minutely dentate, excurved below vein 7 and at middle; a terminal series of small black lunules defined on inner side by whitish. Hind wing fuscous brown, the interspaces of basal half somewhat paler; the underside with faint discoidal spot and diffused sinuous postmedial line.

Hab. Ceylon, 2 ♀ type; Borneo, Sarawak (*Wallace*), 1 ♂, 1 ♀. *Exp.* 32 millim.

6448. **Nigramma todara**, n. sp. (Plate CLXXIX. fig. 19.)

Head and tegulæ red-brown; thorax dark brown mixed with black and grey; pectus, legs, and abdomen grey-brown. Fore wing dark brown suffused with purplish grey and slightly irrorated with black; subbasal line indistinct, double, waved, from costa to vein 1;

antemedial line indistinct, double, excurved below costa, then oblique, waved; claviform and orbicular represented by black striæ on their outer edge; reniform slightly defined by black and with tuft of raised black scales in centre; an indistinct sinuous medial line; postmedial line, indistinctly double, bent outwards below costa, then minutely dentate, incurved at discal fold and strongly below vein 4; a series of small dentate black marks before the subterminal line, which is grey defined on outer side by brown or blackish, minutely dentate; a terminal series of small black lunules, the one above tornus defined on inner side by white. Hind wing dark brown, the cilia grey at tips.

Ab. 1. Fore wing with blackish band beyond the antemedial line.

Ab. 2. Thorax black with the dorsal crest tipped with white; fore wing with diffused black streaks on basal area on median nervure and vein 1.

Hab. Madras, Nilgiris (*Hampson*), 3 ♂, 3 ♀ type. *Exp.* 28–32 millim.

6449. **Nigramma polymorpha.** (Plate CLXXIX. fig. 20.)

Gyrtona polymorpha, Hmpsn. A. M. N. H. (7) xvi. p. 539 (1905).

♂. Head and thorax purplish black-brown with some rufous on head, tegulæ, and prothorax; pectus and hind legs greyish; tarsi fuscous with pale rings; abdomen fuscous, whitish below. Fore wing purplish black-brown with traces of waved subbasal, antemedial, and medial lines; reniform defined by black; postmedial line double, minutely dentate, bent outwards below costa, excurved to vein 4, then incurved; a double minutely waved subterminal line, slightly excurved at vein 7 and middle; a terminal series of small black lunules. Hind wing fuscous brown, slightly paler at base; the underside paler with indistinct curved postmedial line.

Ab. 1. Fore wing redder brown, the basal area except towards costa, the medial area except towards costa and inner margin, and the area between the two subterminal lines grey-white irrorated with fuscous; a black patch before the antemedial line below cell and another beyond it in and below cell; reniform red-brown largely suffused with black.

♀ like the typical male but head, thorax, and fore wing redder brown.

Ab. 2. Fore wing pale red-brown, the inner half from base to postmedial line suffused with white.

Ab. 3. Fore wing ochreous brown.

Ab. 4. Fore wing greyish brown with black point on antemedial line at vein 1 and patch beyond it in and below cell.

Ab. 5. Fore wing with the medial and terminal areas dull reddish brown, the basal area and the area between the two postmedial lines except at costa ochreous brown.

Hab. Mauritius, Curepipe (*Tulloch*), 3 ♂, 4 ♀ type. *Exp.* 30–34 millim.

6450. Nigramma lapidaria.

Clina lapidaria, Wlk. xxxi. 257 (1864); Hmpsn. Ill. Het. B.M. viii. p. 18, pl. 143. f. 20; id. Moths Ind. ii. p. 406.
Clina rufina, Hmpsn. Ill. Het. B.M. viii. p. 86, pl. 146. f. 12 (1891).
Clina basalis, Hmpsn. Ill. Het. B.M. viii. p. 86, pl. 146. f. 5 (1891).

♀. Head and thorax pale ochreous brown, the edges of tegulæ and a dorsal fascia red-brown; pectus whitish; tarsi slightly ringed with white; abdomen grey-brown tinged with fuscous, the ventral surface whitish. Fore wing pale ochreous brown slightly irrorated with red-brown, a red-brown fascia on inner margin from near base to tornus; traces of a double antemedial line, excurved below costa, then oblique and slightly angled inwards at vein 1;

Fig. 59.—*Nigramma lapidaria*, ♀. ½.

traces of a straight medial line; reniform very faintly defined by brown and with dark point in centre; postmedial line very indistinct, double, bent outwards below costa, below vein 4 incurved to below end of cell; some minute brown streaks on terminal part of costa; subterminal line only defined by some brown points on inner and outer sides and a black spot on inner side in submedian interspace; a terminal series of slight dark lunules. Hind wing fuscous brown, the interspaces of basal area somewhat paler; cilia whitish at tips.

Ab. 1. Fore wing with the lines much more distinct, a brown mark beyond the antemedial line at median nervure.

Ab. 2 (*rufina*). Fore wing with the red-brown fascia expanding on terminal area to middle of termen.

Ab. 3. Fore wing with the fascia on inner margin black.

Ab. 4. Fore wing without fascia on inner margin.

Ab. 5. Similar but with the head, tegulæ, and prothorax black.

Ab. 6. Similar to ab. 4 but with the medial line very prominent.

Ab. 7. Similar but with diffused dark medial band.

Ab. 8 (*basalis*). Similar but with black patch on antemedial area from below costa to vein 1.

Hab. Madras, Nilgiris (*Lindsay*, *Cardew*, *Hampson*), 7 ♀ types *rufina* and *basalis*, Coimbatore (*Walhouse*), 1 ♀ type, Palnis (*Campbell*), 1 ♀. *Exp.* 26–28 millim.

6451. Nigramma perlignealis. (Plate CLXXIX. fig. 21.)

Hypochalcia perlignealis, Wlk. xxvii. 46 (1863).

♀. Head and thorax white slightly mixed with red-brown;

fore legs brown, the tarsi tinged with white; abdomen white, dorsally suffused with red-brown, the basal crest blackish. Fore wing white faintly tinged with olive and slightly irrorated with red-brown; a red-brown fascia on inner margin from near base, expanding triangularly on terminal area to vein 5; antemedial line represented by two slight striæ from costa; tufts of raised scales in and below middle of cell placed on a red-brown band extending from discal fold to the fascia on inner margin; a tuft of raised white scales on discocellulars; postmedial line represented by a series of slight dark points, excurved to vein 4, then oblique; subterminal line white with patches of dark brown before and beyond it below costa, excurved below vein 7; a terminal series of blackish striæ defined on inner side by white; cilia red-brown. Hind wing fuscous brown.

Hab. Borneo, Sarawak (*Wallace*), 2 ♀ type. *Exp.* 24 millim.

6452. **Nigramma dialeuca.** (Plate CLXXIX. fig. 22.)

Gyrtona dialeuca, Hmpsn. A. M. N. H. (7) xvi. p. 537 (1905).

♀. Head and thorax red-brown with white stripes on sides of head and tegulæ and above patagia; palpi whitish at tips; abdomen pale fuscous, whitish at base, the dorsal crests blackish, the ventral surface white. Fore wing rufous with whitish fascia from base of costa through the cell to termen below apex; a white streak on inner margin from near base to subterminal line towards which it increases in width; two rather interrupted medial lines, bent inwards to costa and terminating at vein 1 where they meet; reniform defined by slight tufts of raised black scales; postmedial line indistinct, double, minutely dentate, bent outwards below costa and oblique below vein 4; subterminal line whitish, excurved at middle, defined by blackish marks before and beyond it at costa and middle and a black spot beyond it above tornus; a terminal series of blackish striæ. Hind wing fuscous brown, the interspaces of basal half semihyaline.

Hab. Borneo, Sarawak (*Wallace*), 1 ♀ type. *Exp.* 26 millim.

*6453. **Nigramma purpurascens.** (Plate CLXXIX. fig. 23.)

Sadarsa purpurascens, Beth.-Baker, Nov. Zool. xiii. p. 235 (1906).

♀. Head and tegulæ black-brown; thorax reddish brown mixed with dark brown, the prothoracic crest black-brown, reddish brown at tip; pectus rufous in front; legs greyish, the tarsi blackish ringed with whitish, the fore tibiæ black at base, rufous at tips; abdomen greyish fuscous with white dorsal band on 2nd segment followed by points on the other segments, the ventral surface whitish. Fore wing black-brown with a purple-grey gloss on basal half and inner area, the costal area on terminal half rufous to median nervure and vein 4; antemedial line rather diffused, black,

excurved to median nervure, then oblique, some dark suffusion beyond it in and below cell and an oblique line from submedian fold to inner margin; a slight discoidal lunule and tuft of raised scales at upper angle of cell; postmedial line double, obsolescent towards costa, angled outwards below costa, then oblique, excurved at middle and below submedian fold, crossed by a pale streak from lower angle of cell to beyond the indistinct subterminal line which is incurved below vein 3; a series of slight dark lunules before termen; a terminal series of dark striæ; cilia grey-brown with a rufous line at base. Hind wing fuscous brown, the interspaces of basal half semihyaline to just below the cell; cilia whitish with a brown line through them; the underside grey-brown.

Hab. Br. New Guinea, Aroa R. (*Meek*), type † ♀ in Coll. Rothschild. *Exp.* 32 millim.

*6454. **Nigramma albicans.** (Plate CLXXIX. fig. 24.)

Lophoptera albicans, Pag. Zoologica, xii. Heft 29, p. 92, pl. ii. f. 40 (1900).

♀. Head, thorax, and abdomen ochreous tinged with rufous, the outer half of patagia bright rufous; antennæ dark brown; tarsi banded with blackish; ventral surface of abdomen whitish. Fore wing ochreous irrorated with rufous, the inner area below submedian fold bright rufous, expanding beyond the cell to termen at discal fold and leaving some ochreous at base of inner margin; antemedial line very indistinct, double, curved, minutely waved, filled in with white in submedian interspace and with black-brown spot beyond it on median nervure; reniform faintly defined by rufous, constricted at middle; postmedial line very indistinct, double, strongly bent outwards below costa, then minutely waved, oblique below vein 4, some minute dark streaks beyond it on costa: subterminal line indistinct, double, minutely waved, some blackish before and beyond it at costa; a terminal series of small black lunules defined on inner side by ochreous; cilia ochreous tinged with rufous. Hind wing fuscous brown with a reddish tinge, the cilia ochreous tinged with rufous.

Hab. New Britain, Kinigunang (*Ribbé*), type † ♀ in Coll. Rothschild. *Exp.* 28 millim.

Genus **SADARSA.**

	Type.
Sadarsa, Moore, Lep. Atk. p. 164 (1882)	*longipennis.*

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching about to middle of frons and moderately scaled, the 3rd long; frons smooth, with tuft of hair above; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales, the pro- and metathorax with spreading crests; tibiæ slightly fringed with hair; abdomen with small dorsal crests on three basal segments. Fore wing very long and narrow, the costa and inner margin parallel, the costa highly arched towards apex, the termen very obliquely curved and hardly crenulate, the inner margin lobed near base; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10

anastomosing with 8 to form the areole; 11 from cell. Hind wing with the cell short; veins 3, 4, 5 from angle; 6, 7 shortly stalked or from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Fore wing of male with the apex extremely produced, the outer margin very oblique, of female with the apex less produced.

6455. Sadarsa longipennis.

Sadarsa longipennis, Moore, Lep. Atk. p. 165, pl. 5. f. 14 (1882); Hmpsn. Moths Ind. ii. p. 404.

♂. Head, tegulæ, and prothorax bright rufous, the rest of thorax purplish brown; pectus greyish; tarsi fuscous ringed with white; abdomen grey-brown, the crests black. Fore wing brown with a purplish grey gloss; subbasal line represented by two dark

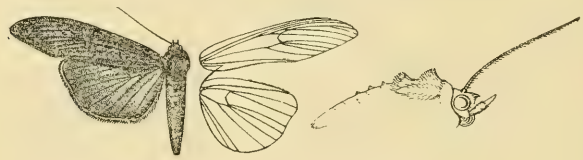


Fig. 60.—*Sadarsa longipennis*, ♂. ½.

striæ from costa; antemedial line indistinct, double, sinuous; claviform and orbicular represented by striæ of raised black scales, the reniform by points of raised black scales at its angles; medial line indistinct, dark, excurved in cell; postmedial line indistinct, double, very strongly bent outwards below costa, then waved, incurved at discal fold and very oblique below vein 4; subterminal line indistinct, double, highly dentate, defined on inner side by some whitish scales; a terminal series of black striæ and white points at the veins. Hind wing semihyaline whitish tinged with brown, the veins and terminal area suffused with brown; cilia with a fine whitish line at base and whitish tips.

♀. Head and thorax grey-brown.

Hab. Sikhim (*Pilcher*, *Möller*), 5 ♂; Assam, Khásis, 1 ♀. *Exp.* ♂ 50, ♀ 42 millim.

Sect. II. Fore wing of male with the apex moderately produced, as in female of Sect. I.

6456. Sadarsa tenuis.

Cucullia tenuis, Moore, P. Z. S. 1867, p. 60; Hmpsn. Moths Ind. ii. p. 404.

♂. Head and thorax black-brown mixed with some red-brown; pectus greyish; legs black-brown; abdomen fuscous brown, the crests blackish, the ventral surface irrorated with white. Fore wing black-brown with a silvery leaden gloss, the terminal area

red-brown except towards costa; subbasal line indistinct, double, angled outwards below costa and at median nervure; antemedial line double, highly dentate; claviform and orbicular represented by slight points of raised scales, the reniform defined by slight

Fig. 61.—*Sadarsa tenuis*, ♂. ½.

points of raised scales; an oblique highly dentate medial line from beyond lower angle of cell to inner margin; postmedial line double, very strongly bent outwards below costa, then dentate, very oblique below vein 4; a double highly dentate subterminal line; cilia fuscous and greyish. Hind wing semihyaline whitish, the veins and terminal area brown; cilia with fine whitish line at base and whitish tips; the underside with indistinct curved postmedial line.

Hab. Sikhim (*Möller*), 3 ♂, 1 ♀. *Exp.* 42 millim.

Genus **NYCTEOLA**.

	Type.
Nycteola, Herr.-Schäff. Eur. Schmett. ii. p. 444 (1853)	*falsalis*.
Zebeeba, Kirby, Cat. Lep. Het. p. 279 (1892)	*falsalis*.

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd short; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed with scales and hair mixed and without distinct crests; tibiæ smoothly scaled; abdomen without crests. Fore wing long and narrow, the apex somewhat produced, the termen obliquely curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a minute areole; 11 from cell. Hind wing with the termen somewhat excised from below apex to vein 4; veins 3, 4 stalked; 5 fully developed from above angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to middle; frenulum of female with a tuft of hairs as well as the single bristle.

6457. **Nycteola falsalis.**

Hypena falsalis, Herr.-Schäff. Deutschl. Ins. i. pl. 166. f. 1 (1839); id. Schmett. Eur. ii. p. 444, Nyct. ff. 4, 5; Kirby, Cat. Lep. Het. p. 279; Staud. Cat. Lep. pal. p. 362.
Nola dardoinula, Mill. Icones, iii. pp. 172–466, pl. 117. ff. 1, 2 (1869).

Head, thorax, and abdomen grey mixed with some brown. Fore wing grey-white tinged with red-brown, especially on costal half to end of cell; a blackish patch on costa before the antemedial line, which is white, defined on outer side by black, excurved to below the cell, then incurved and above vein 1 curving round and forming a loop running up to lower angle of cell; a curved black medial

line joining the black on the outer edge of the antemedial line; orbicular a minute rather quadrate white spot defined by brown before the medial line; an oblique white patch from costa towards apex with some minute blackish spots on the costa, the postmedial line arising from it at vein 6, white slightly defined on inner side by brown and brown streaks, minutely waved, incurved below vein 4, a red-brown shade beyond it, running obliquely to apex towards

Fig. 62.—*Nycteola falsalis*, ♂. ¾.

which it is prominent; a terminal series of black points. Hind wing white tinged with reddish brown and with brown terminal line; the underside with dark brown discoidal spot and mark at extremity of vein 1.

Hab. S. France; Spain; Corsica; Sardinia; Italy, Naples, Zeller Coll., Capri (*C. S. Browne*); Sicily; Algeria, Hammam-es-Salahin (*Walsingham*), 1 ♀; Austria, Croatia, Zeller Coll., Istria; Dalmatia, Zeller and Fry Colls.; Syria. *Exp.* 18–22 millim.

Genus **STENOSTICTA**, nov.

Type, *S. grisea*.

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching about to vertex of head and moderately fringed with scales in front and behind, the 3rd short, porrect; frons smooth; eyes large, round; antennæ of male minutely ciliated; thorax clothed almost entirely with scales, the prothorax with small spreading crest; the metathorax with paired crest; tibiæ slightly fringed with hair; abdomen with crests on basal segments. Fore wing narrow, the margins subparallel, the apex somewhat produced and acute, the termen obliquely curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 strongly stalked; 5 fully developed from just above angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

6458. Stenosticta grisea, n. sp.

♂. Head, thorax, and abdomen grey slightly mixed with fuscous; pectus and legs whitish; abdomen with the crests on 2nd and 3rd

Fig. 63.—*Stenosticta grisea*, ♂. ¾.

segments black. Fore wing grey tinged with fuscous; subbasal line represented by minute black points below costa and cell; ante-

medial line indistinctly double, oblique from costa to submedian fold, then incurved; two black discoidal points on a faint figure-of-eight-shaped grey patch; postmedial line very indistinct, double, bent outwards below costa, then oblique, below vein 4 incurved to below end of cell; an indistinct subterminal line excurved below vein 7 and at middle; a terminal series of blackish points. Hind wing semihyaline white, the veins of terminal half brown, the terminal area suffused with brown; cilia white tinged with brownish at base.

Hab. Br. E. Africa, Athi R., Kitwi (*Crawshay*), 2 ♂ type. *Exp.* 14 millim.

Genus **GYRTONA**.

	Type.
Gyrtona, Wlk. xxvii. 89 (1863)	*proximalis*.
Savoca, Wlk. xxx. 996 (1864)	*divitalis*.

Proboscis fully developed; palpi obliquely upturned, the 2nd joint typically extending about the length of head and fringed with hair above and below towards extremity, the 3rd moderate, porrect; frons smooth, with tuft of hair above; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without distinct crests; tibiæ slightly fringed with hair, the spurs long; abdomen with small crests on medial segments. Fore wing long and narrow, the margins parallel, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Fore wing of male with the costa highly arched, neuration much distorted; hind wing with the basal part of costa lobed.

6459. Gyrtona arcuata.

Sadarsa arcuata, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 454, pl. A. f. 19 (1897), ♂.

Gyrtona camptobasis, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 454, pl. A. f. 20 (1897), ♀.

Head and thorax brownish grey mixed with some black; fore tibiæ and tarsi banded with black; abdomen brownish grey, the crests black. Fore wing brownish grey slightly irrorated with fuscous, the base tinged with rufous bounded by a diffused obliquely

Fig. 64.—*Gyrtona arcuata*, ♂. ½.

curved black subbasal band; traces of a double waved antemedial line; claviform represented by a point of raised black scales, the orbicular by two points; reniform defined by black points; traces of an oblique sinuous line from lower angle of cell to inner margin;

postmedial line formed by double series of slight blackish spots, very indistinct except on inner area, strongly bent outwards below costa and incurved below vein 4; two curved subterminal series of small rather dentate blackish spots defined on inner side by whitish lunules; a terminal series of black striæ. Hind wing grey tinged with brown; cilia with a fine whitish line at base and whitish tips.

♀. Fore wing more variegated with brown and grey, the markings more distinct.

Hab. Sikhim (*Dudgeon*), 2 ♀ type *camptobasis*; Assam, Khásis, 1 ♂ type; Penang (*Flower*), 1 ♀; Singapore (*Ridley*), 6 ♂, 6 ♀. *Exp.* 26–30 millim.

Sect. II. Fore wing with the costa not arched.

A. Fore wing with ridges of raised scales beyond the antemedial line in and below cell and beyond the postmedial line on costal half.

a. Palpi with the second joint extending about twice the length of head.

6460. Gyrtona cristipennis.

Gyrtona cristipennis, Hmpsn. J. Bomb. Nat. Hist. Soc. xiv. p 213 (1902).

♀. Head and thorax grey-white slightly mixed with fuscous, the tips of patagia and metathorax ochreous; fore femora black on inner side, the fore and mid tibiæ barred with black on inner side; abdomen ochreous with the crests blackish. Fore wing white with a faint lilacine tinge, the basal area and costal area towards apex ochreous, the medial costal area suffused with brown; subbasal line represented by double very oblique black striæ from costa, followed by a silvery white line very oblique to median nervure, then erect

Fig. 65.—*Gyrtona cristipennis*, ♀. ½.

and closely approximated to the silvery white antemedial line, which is defined on each side by blackish, oblique towards costa, then erect and slightly bent inwards at median nervure, the raised ridges of scales beyond it in and below the cell tinged with rufous at tips; reniform with white bars at sides defined by black, slightly angled inwards at median nervure and produced at upper extremity, medial line blackish, oblique to the reniform, then inwardly oblique and rather diffused; postmedial line black, indistinct, strongly bent outwards below costa, then dentate, incurved and almost obsolete below vein 4, a white point beyond it on costa; subterminal line white with a small black spot beyond it at apex and black streak from it to postmedial line below vein 7, oblique towards costa, then almost straight and erect; the terminal area tinged with brown;

a terminal series of black striæ defined on inner side by white; cilia ochreous. Hind wing semihyaline white tinged with brown, the terminal area suffused with brown; cilia ochreous at base, white at tips.

Hab. Assam, Khásis, 2 ♀ type. *Exp.* 26 millim.

b. Palpi with the 2nd joint extending about the length of head.

6461. Gyrtona lophota.

Gyrtona lophota, Turner, P. Linn. Soc. N. S. W. xxxiv. p. 343 (1909).

Head and thorax dark red-brown mixed with some grey, the patagia greyer; palpi whitish below at base; pectus and legs whitish, the tibiæ and tarsi banded with red-brown; abdomen red-brown, the crest on 3rd segment black, the ventral surface yellowish. Fore wing red-brown; the basal area yellowish white with a brown patch at base of costa with two blackish subbasal striæ on it; antemedial line blackish, treble, sinuous, the ridges of scales beyond it in and below cell with black tips and black striga above them from costa; an oblique yellowish-white fascia from

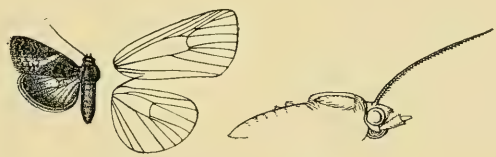


Fig. 66.—*Gyrtona lophota*, ♂. ½.

middle of costa to postmedial line at vein 2; reniform faintly defined by dark points; traces of an oblique sinuous medial line; postmedial line treble, minutely waved, incurved at discal fold and angled inwards at vein 2; the apical area darker brown, a minutely waved whitish subterminal line; a series of small red-brown spots slightly defined by whitish just before termen. Hind wing with the basal half semihyaline whitish suffused with brown, the terminal half dark brown; cilia white at tips; the underside with dark discoidal striga and curved postmedial line.

Hab. Queensland, Kuranda (*Dodd*), 2 ♂, 2 ♀. *Exp.* 20–26 millim.

B. Fore wing of male with antemedial fovea above vein 1; hind wing with the costa strongly lobed before middle.

6462. Gyrtona inclusalis.

Gyrtona inclusalis, Wlk. xxvii. 94 (1863).

♂. Head, thorax, and abdomen brown mixed with whitish; pectus and ventral surface of abdomen whitish. Fore wing whitish suffused and irrorated with brown; subbasal line represented by a

slight black striga from costa ; a blackish patch on costa before the dark antemedial line, which is slightly waved and bent outwards above inner margin, a black-brown patch beyond it in and below cell ; medial line blackish, slightly curved ; reniform faintly defined by brown and with point of raised black scales in centre ; post-medial line indistinct, double, bent outwards below costa, then minutely waved, incurved at discal fold and below vein 4, some

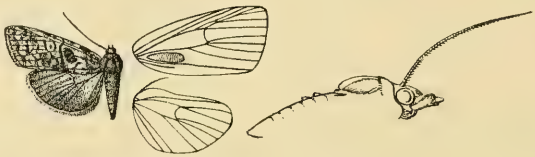


Fig. 67.—*Gyrtona inclusalis*, ♂. ⅔.

whitish points beyond it on costa and a dark line excurved below vein 7 and at middle ; subterminal line whitish defined on outer side by dark brown, slightly excurved below vein 7 and at middle ; a terminal series of blackish striæ. Hind wing uniform fuscous brown ; the underside paler.

Hab. Singapore (*Ridley*), 1 ♂ ; Borneo, Sarawak (*Wallace*), 2 ♂ type. *Exp.* 22 millim.

C. Hind wing of male with small glandular swelling at base of costa.
  a. Fore wing grey suffused with brown ..... *semicarbonalis*.
  b. Fore wing uniform dark brown ..... *acisalis*.

6463. Gyrtona semicarbonalis.

Gyrtona semicarbonalis, Wlk. xxvii. 92 (1863).
Gyrtona rotundalis, Wlk. xxvii. 93 (1863).
Gyrtona thoracica, Wlk. xxvii. 96 (1863) ; Hmpsn. Ill. Het. B.M. ix. p. 104, pl. 163. f. 19 ; id. Moths Ind. ii. p. 405.
Gyrtona spilalis, Wlk. xxvii. 97 (1863).
Gyrtona phycisoides, Moore, Lep. Ceyl. iii. p. 125, pl. 158. f. 8 (1885).
Lophoptera angusta, Pag. Zoologica, xii. Heft 29, p. 92 (1900).

(*rotundalis*.) Head and thorax brown mixed with grey ; pectus whitish ; tarsi brown ringed with white ; abdomen grey-brown, the

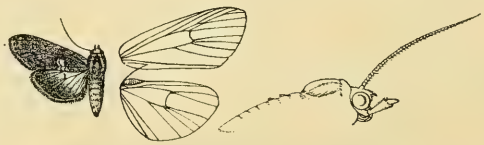


Fig. 68.—*Gyrtona semicarbonalis*, ♂. ⅔.

ventral surface whitish. Fore wing grey suffused and irrorated with brown and with a silvery purplish gloss ; subbasal line represented by a slight curved striga from costa ; antemedial line indistinctly double, slightly waved and somewhat oblique, points of raised black

scales on its outer edge in and below cell; medial line dark, sinuous; reniform faintly defined by fuscous and with a point of raised black scales in centre; postmedial line indistinctly double, bent outwards below costa, then minutely waved, incurved at discal fold and below vein 4; some pale points beyond it on costa and an indistinct curved minutely dentate line; subterminal line grey slightly defined on each side by fuscous brown, minutely waved, slightly excurved below vein 7 and at middle; a terminal series of dark brown striæ. Hind wing fuscous brown, the interspaces of basal half semihyaline whitish; cilia with fine white line at base and whitish tips; the underside paler.

Ab. 1. *spilalis*. Fore wing with black spot on vein 1 beyond the antemedial line.

Ab. 2. *phycisoides*. Fore wing with black spots on vein 1 beyond the antemedial and medial lines.

Ab. 3. Fore wing with white patch on inner area beyond the antemedial black spot.

Ab. 4. Fore wing with the white patch on inner area but without the black spot.

Ab. 5. Fore wing with diffused brown streak on median nervure and thence to termen.

Ab. 6. The type. Fore wing suffused with black from near base to middle.

Ab. 7. *thoracica*. Similar, but head, thorax, abdomen, and the terminal half of fore wing except towards tornus whitish.

Hab. Ceylon (*Templeton*), 2 ♀ types *thoracica* and *phycisoides*, Maskeliya (*Pole*), 1 ♀; Perak, Goping (*Künstler*), 1 ♀; Singapore (*Ridley*), 4 ♂, 6 ♀; Borneo, Sarawak (*Wallace*), 1 ♂, 5 ♀, type and types *rotundalis* and *spilalis*; New Britain, type † ♀ *angusta* in Coll. Rothschild. *Exp.* 20–24 millim.

6464. Gyrtona acisalis. (Plate CLXXIX. fig. 25.)

Nephopteryx acisalis, Wlk. xxvii. 66 (1863); Hmpsn. Moths Ind. ii. p. 405.

♂. Head and thorax dark brown with a purplish tinge, the tegulæ and dorsum of thorax sometimes with whitish and rufous mixed; pectus whitish; the tarsi with pale rings; abdomen grey-brown, the ventral surface whitish. Fore wing dark brown suffused with purple; subbasal line double, waved, from costa to vein 1; antemedial line double, waved; medial line indistinct, waved; reniform indistinctly defined and with point of raised rufous and black scales in centre; postmedial line double, bent outwards below costa, then minutely dentate, strongly incurved below vein 4 to below end of cell, some pale points beyond it on costa; subterminal line indistinct, double, minutely dentate; a terminal series of small black spots. Hind wing fuscous brown, the interspaces of basal half whitish.

Hab. Ceylon (*Nietner*), 3 ♂ type; Singapore (*Ridley*), 2 ♂. *Exp.* 22–26 millim.

D. Fore and hind wings normal.
  a. Antennæ of male with long cilia.
    a^1. Fore wing with broad white fascia below costa ... *niveivitta*.
    b^1. Fore wing without white fascia below costa.
      a^2. Fore wing with the ground-colour brown.
        a^3. Head and tegulæ bright rufous ..... *ferriceps*,
        b^3. Head and tegulæ dark brown ..... *hylusalis*.
      b^2. Fore wing with the ground-colour grey.
        a^3. Fore wing without brown band beyond the medial line ..... *oxyptera*.
        b^3. Fore wing with brown band beyond the medial line ..... *erebenna*.

6465. **Gyrtona niveivitta.** (Plate CLXXIX. fig. 26.)

Gyrtona niveivitta, Swinh. A. M. N. H. (7) xv. p. 158 (1905).

♂. Head and thorax dark brown; pectus whitish; tibiæ and tarsi black; abdomen grey-brown. Fore wing fuscous brown with a purplish silvery gloss; a pure white fascia below costa, its lower edge rather diffused and irregular, extending to below median nervure before middle; subbasal line represented by a dark point on costa, the antemedial line by double points on costa and double sinuous line from cell to inner margin; an indistinct curved medial line interrupted by the white fascia; reniform white defined by blackish, incompletely above, and with dark striga in centre; postmedial line indistinctly double, excurved below costa, slightly incurved at discal fold, incurved below vein 4, some white points beyond it on costa and a dark line excurved below costa and at middle; subterminal line white defined on outer side by blackish, slightly excurved below vein 7 and at middle, the area beyond it with slight black streaks on the veins; a black terminal line; cilia intersected with white at apex. Hind wing uniform fuscous brown with a faint purplish gloss.

Hab. Penang, 1 ♂; Borneo, Sarawak, 2 ♂, Kuching, 1 ♂ type. *Exp.* 20–22 millim.

6466. **Gyrtona ferriceps**, n. sp. (Plate CLXXIX. fig. 27.)

♂. Head and tegulæ rufous; thorax brown tinged with purplish grey; pectus whitish; tarsi slightly ringed with white; abdomen grey-brown, the ventral surface white at base. Fore wing brown tinged with purplish grey and with slight dark irroration; subbasal line represented by two minute points on costa, the antemedial line by a slight diffused dark patch on costa and spot on vein 1; traces of a double sinuous medial line; a fuscous discoidal spot tinged with grey; postmedial line very indistinct, double, bent outwards below costa, then minutely dentate, oblique below vein 4, some slight pale points beyond it on costa; a slight dark subterminal line defined on inner side by whitish towards inner margin, excurved below vein 7 and at middle; a terminal series of small blakeish spots. Hind wing fuscous brown, the cilia white at tips.

Hab. Burmah, Rangoon, 1 ♂ type. *Exp.* 22 millim.

6467. Gyrtona hylusalis.

Gyrtona hylusalis, Wlk. xxvii. 93 (1863); Hmpsn. Ill. Het. B.M ix. p. 104, pl. 163. f. 18; id. Moths Ind. ii. p. 405.
Gyrtona nigrocinerea, Wlk. xxvii. 94 (1863).
Gyrtona dorsifascialis, Wlk. xxvii. 95 (1863).
Gyrtona strenualis, Wlk. xxvii. 96 (1863).
Gyrtona monilialis, Wlk. xxvii. 97 (1863).
Nephopteryx demptella, Wlk. xxxv. 1721 (1866).

Head and thorax dark brown mixed with grey; pectus whitish; abdomen fuscous brown with some grey at base, the ventral surface whitish. Fore wing dark red-brown mixed with grey and with slight silvery irroration; subbasal line slight, dark, excurved below costa and ending at vein 1; antemedial line double, filled in with grey except towards costa, oblique towards costa and slightly incurved at vein 1, some whitish before it on inner half and some raised blackish scales on its outer edge in and below cell; medial line slight, sinuous; reniform slightly defined by black and with some raised scales in centre; the outer part of medial area with

Fig. 69.—*Gyrtona hylusalis*, ♂. ½.

whitish patch on inner half; postmedial line formed of raised black scales slightly defined on inner side by whitish, bent outwards below costa, slightly incurved at discal fold, incurved below vein 4, some whitish points beyond it on costa and traces of a dark line excurved at middle; subterminal line whitish defined on outer side by dark brown, somewhat excurved below vein 7 and at middle; a terminal series of blackish striæ. Hind wing uniform fuscous brown, the cilia whitish at tips, the underside paler.

Hab. Travancore, Pirmád (*Mrs. Imray*), 1 ♂; Ceylon (*Templeton, Nietner*), 3 ♂, 5 ♀, type and types *nigrocinerea*, *strenualis*, and *monilialis*; hab. ign., 1 ♂, 1 ♀, types *dorsifascialis* and *demptella*. *Exp.* 20–24 millim.

6468. Gyrtona oxyptera, n. sp. (Plate CLXXIX. fig. 28.)

Head and thorax fuscous brown mixed with purplish grey; abdomen grey-brown. Fore wing purplish grey thickly irrorated with fuscous brown; the costal area suffused with brown; two indistinct dark patches on basal part of costa; antemedial line very indistinct, angled outwards below costa, then oblique and sinuous; orbicular represented by a minute tuft of raised scales; reniform

slightly defined by fuscous and with raised scales on its inner edge; medial line dark, excurved below costa, then oblique and minutely waved; postmedial line indistinct, dark, bent outwards below costa, then minutely waved, slightly incurved at discal fold, incurved below vein 4, some whitish points beyond it on costa, subterminal line greyish defined on outer side by fuscous, slightly excurved below vein 7 and at middle; a terminal series of black striæ. Hind wing fuscous brown, the cilia whitish at tips; the underside paler.

Ab. 1. Fore wing with the area between the antemedial and medial lines blackish.

Hab. Singapore (*Ridley*), 3 ♂, 6 ♀ type. *Exp.* 24–26 millim.

*6469. Gyrtona erebenna. (Plate CLXXIX. fig. 29.)

Gyrtona erebenna, Mab. Ann. Soc. Ent. Fr. 1899, p. 731.

♂. Head, thorax, and abdomen grey mixed with some brown; palpi rather darker at sides. Fore wing grey; a subbasal brown band with waved outer edge; an indistinct antemedial line angled outwards on median nervure; a slight waved medial line angled outwards on median nervure and with brownish band beyond it; two slight discoidal points; an indistinct diffused brown postmedial band, bent outwards below costa, excurved to vein 4, then oblique; the terminal area fuscous brown with traces of a dentate grey subterminal line and waved terminal line enclosing a series of dark points. Hind wing grey suffused with fuscous brown.

Hab. Madagascar, Baie d'Antongil, type † ♂ in Coll. Mabille. *Exp.* 14 millim.

b. Antennæ of male minutely ciliated.
  a^1. Fore wing with dentate white subapical mark ..... *nama.*
  b^1. Fore wing without dentate white subapical mark.
    a^2. Hind wing semihyaline white, the terminal area fuscous brown.
      a^3. Fore wing with the postmedial line incurved below vein 4 ..... *exsicca.*
      b^3. Fore wing with the postmedial line oblique from below costa to inner margin ..... *ochreographa.*
      c^3. Fore wing with erect postmedial band slightly excurved at middle ..... *phæozona.*
    b^2. Hind wing nearly uniform fuscous brown.
      a^3. Fore wing with the postmedial line slightly incurved below costa and excurved at middle ... *divitalis.*
      b^3. Fore wing with the postmedial line bent outwards below costa and incurved or oblique below vein 4.
        a. Fore wing with the antemedial line curved.
          a^5. Fore wing suffused with silvery scales..... *plumbisparsa.*
          b^5. Fore wing not suffused with silvery scales ... *polionota.*
        b^4. Fore wing with the antemedial line slightly angled outwards below costa, then oblique ... *proximalis.*
        c^4. Fore wing with the antemedial line very obliquely excurved from costa to just below the cell, then oblique ..... *atribasalis.*

6470. Gyrtona nama. (Plate CLXXIX. fig. 30.)

Gyrtona nama, Swinh. A. M. N. H. (7) vii. p. 492 (1900).

Head and tegulæ deep red-brown mixed with ochreous; patagia fuscous with a leaden grey gloss; dorsum of thorax white; pectus whitish; legs fuscous, the tarsi ringed with white; abdomen whitish suffused with brown, a dorsal series of white patches except on terminal segment, with red-brown streak at base and the crests red-brown. Fore wing purple-brown with a leaden grey gloss; subbasal line represented by slight double dark striæ from costa; antemedial line indistinct, double, waved; claviform and orbicular represented by slight points of raised dark scales; reniform defined by points of raised black scales, its annulus represented by a white bar on inner side, and white spot on outer with points above and below it; medial line dark, slightly angled outwards at discal and submedian folds; postmedial line double, strongly bent outwards and almost obsolete below costa, then the inner line fine, black, the outer diffused purplish with a band of raised black scales between veins 7 and 4 expanding into a spot above, very oblique below vein 4, some white points beyond it on costa and a line formed of brown and white scales from below costa, somewhat lunulate, oblique below vein 4; subterminal line represented by a white V-shaped subapical mark with some black on its outer edge and a small spot on vein 5; a black terminal line interrupted by white points at the veins; cilia blackish chequered with brown at tips. Hind wing semihyaline whitish, the veins and terminal area fuscous brown; cilia with a fine whitish line at base and whitish tips; the underside with indistinct curved postmedial line.

Hab. Bhután (*Dudgeon*), 1 ♂; Assam, Jaintia Hills, 1 ♀ type. *Exp.* 32 millim.

6471. Gyrtona exsicca.

Gyrtona exsicca, Swinh. Trans. Ent. Soc. 1891, p. 149, pl. 8. f. 5; Hmpsn. Moths Ind. ii. p. 406.

Head and thorax black-brown slightly mixed with greyish; pectus and legs whitish, the fore and mid tibiæ and tarsi blackish; abdomen brownish grey, the basal segment blackish, the ventral surface white. Fore wing fuscous brown tinged with grey; antemedial line indistinct, angled outwards below costa and above inner margin and inwards on vein 1; claviform and orbicular represented by minute points of raised black scales; reniform defined by minute points of raised black scales; medial line angled outwards in cell and above vein 1; postmedial line indistinct, bent outwards below costa, incurved at discal fold, incurved below vein 4 to below end of cell, then double and with raised scales on the outer line, some white points beyond it on costa and a punctiform black line from vein 6 to inner margin, angled inwards at vein 2;

subterminal line blackish, punctiform to vein 3, then incurved; a fine black terminal line. Hind wing semihyaline white, the veins, costal and terminal areas and inner margin suffused with fuscous brown; cilia with whitish line at base and white tips.

Hab. Bombay, Ratnagiri (*Jayaker*), 1 ♀, S. Canara (*Wise*), 1 ♀ type; Ceylon, Colombo (*Mackwood*), 1 ♂, Kandy (*Green, Mackwood*), 1 ♂, 3 ♀. *Exp.* 24 millim.

6472. **Gyrtona ochreographa**, n. sp. (Plate CLXXIX. fig. 31.)

Head, tegulæ, and base of patagia red-brown, the rest of thorax bluish black; palpi and antennæ black; pectus and legs ochreous white, the fore legs blackish in front, the tibiæ and tarsi ringed with whitish; abdomen grey-brown, the crest on 3rd segment black, the ventral surface ochreous white. Fore wing fuscous with a purple gloss and mixed with some grey; antemedial line double, minutely waved; claviform and orbicular represented by tufts of raised black scales with some ochreous before them; reniform defined by points of raised black scales; medial line blackish, excurved in and below cell; postmedial line double filled in with ochreous, bent outwards below costa, then minutely dentate, slightly incurved at discal fold, incurved below vein 4, some whitish points beyond it on costa; two punctiform black subterminal lines defined on inner side by ochreous points; a terminal series of black striæ. Hind wing fuscous black, the cell and interspaces below and beyond it hyaline; cilia with fine whitish line at base.

Hab. Singapore (*Ridley, Wood-Jones*), 2 ♂, 1 ♀ type. *Exp.* 24 millim.

6473. **Gyrtona phæozona.** (Plate CLXXIX. fig. 32.)

Gyrtona phæozona, Hmpsn. A. M. N. H. (7) xvi. p. 537 (1905).

Head and thorax reddish brown; palpi and frons blackish; tegulæ with rather strong black medial line; tarsi blackish with pale rings; abdomen brown tinged with fuscous, the ventral surface whitish. Fore wing reddish brown with slight dark irroration; a subbasal black spot on costa; a double curved antemedial line followed by a rather obliquely curved black band with two curved medial lines beyond it; medial area faintly tinged with fuscous; reniform indistinct, rufous with slight dark outline; antemedial line double filled in with ochreous, the outer line deep black, erect, slightly excurved at middle; terminal area slightly tinged with fuscous; subterminal line indistinct, greyish defined on outer side by fuscous, slightly excurved below costa and at middle; a terminal series of black points. Hind wing pale, semihyaline, the veins and terminal area fuscous; the underside with indistinct curved postmedial line.

Hab. Bombay, N. Canara, Karwar (*Bell*), 1 ♂ type; Madras, Nilgiris, 1 ♀. *Exp.* 22 millim.

6474. Gyrtona divitalis. (Plate CLXXX. fig. 1.)

Gyrtona divitalis, Wlk. xxvii. 91 (1863).
Gyrtona conglobalis, Wlk. xxvii. 92 (1863).
Savoca sarawakana, Wlk. xxx. 996 (1864).
Gyrtona yucca, Swinh. A. M. N. H. (6) xii. p. 264 (1893).

Head and thorax red-brown mixed with some grey; pectus whitish; tarsi ringed with white; abdomen grey-brown, the ventral surface whitish. Fore wing red-brown with a purplish grey gloss especially before and beyond the postmedial line on inner half; subbasal line represented by two slight dark striæ from costa; antemedial line double, curved and slightly waved; claviform and orbicular represented by ridges of raised blackish scales; reniform slightly defined by black and with point of raised black scales in centre; medial line blackish, curved and slightly sinuous; postmedial line treble, minutely waved, incurved below costa and excurved at middle; subterminal line grey defined on outer side by dark brown, minutely waved, excurved below vein 7 and at middle; a terminal series of small blackish spots. Hind wing fuscous brown, the interspaces of basal half somewhat hyaline; cilia with fine whitish line at base and whitish tips.

Hab. Andamans, 1 ♀; Selangor, Semangho (*Robinson*), 1 ♂; Singapore (*Ridley*), 10 ♂, 15 ♀ type *yucca*; Borneo, Sarawak (*Wallace*), 3 ♂, 6 ♀, type and types *conglobalis* and *sarawakana*. *Exp.* 16–20 millim.

6475. Gyrtona plumbisparsa. (Plate CLXXX. fig. 2.)

Gyrtona plumbisparsa, Hmpsn. A. M. N. H. (7) xvi. p. 538 (1905).

♀. Head, thorax, and abdomen dark red-brown; tarsi with pale rings; abdomen with the slight dorsal crests black. Fore wing dark red-brown suffused with leaden silvery scales especially on inner and terminal areas; traces of two curved subbasal lines from costa to vein 1; three indistinct waved antemedial lines with striæ of raised black scales beyond them in and below cell; an indistinct waved brown medial line; two slight obliquely placed black discoidal striæ; postmedial line double, sinuous, bent outwards below costa, excurved to vein 4, then retracted to below end of cell and with traces of a waved brown line beyond it; subterminal line dark defined by leaden silvery suffusion on inner side and with dark patch before it on costal area, excurved at vein 7 and middle; a series of small dark spots just before termen. Hind wing dark red-brown, the cilia silvery at tips; the underside paler.

Hab. Sikhim, 1 ♀ type. *Exp.* 24 millim.

6476. Gyrtona polionota. (Plate CLXXX. fig. 3.)

Gyrtona polionota, Hmpsn. A. M. N. H. (7) xvi. p. 539 (1905).

♀. Head and thorax pale red-brown suffused with grey; abdomen grey, the ventral surface white. Fore wing red-brown

mostly suffused with grey and slightly irrorated with fuscous; subbasal line represented by slight black points on the veins; antemedial line indistinct, double, minutely waved, curved, with some black points on it; traces of a double medial line; reniform faintly defined by black points; postmedial line indistinctly double, bent outwards below costa and oblique below vein 4, the outer line somewhat dentate and with some black points on it; subterminal line represented by a series of black points, angled outwards at vein 7 and slightly excurved at middle, followed by an indistinct slightly waved line; a terminal series of small black lunules. Hind wing fuscous, the interspaces of basal half pale and thinly scaled.

Hab. Woodlark Isd. (*Meek*), 1 ♀ type. *Exp.* 30 millim.

6477. Gyrtona proximalis.

Gyrtona proximalis, Wlk. xxvii. 90 (1863).
Gyrtona ferrimissalis, Wlk. xxvii. 90 (1863).
Gyrtona costella, Wlk. xxvii. 95 (1863).

Head and thorax dark brown mixed with grey; abdomen brown with slight greyish segmental lines; pectus and ventral surface of abdomen whitish. Fore wing dark brown mixed with grey and with a slight purplish silvery gloss; subbasal line slight, dark, curved, from costa to vein 1; antemedial line indistinctly double, filled in with whitish and with whitish suffusion before it except towards costa, slightly angled outwards below costa, then oblique, minutely waved, the inner line slightly angled inwards at vein 1, points of raised black scales on its outer edge in and below cell;

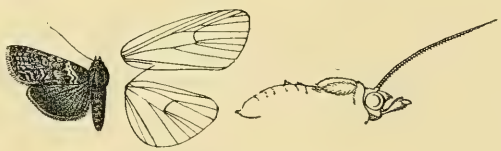


Fig. 70.—*Gyrtona proximalis*, ♂. ½.

medial line dark, slightly sinuous; reniform slightly defined by black and with some raised black scales on its inner edge; postmedial line indistinct, treble, filled in with whitish towards inner margin, bent outwards below costa, then minutely waved, slightly incurved at discal fold, incurved below vein 4, some white points beyond it on costa and an indistinct waved dark line; subterminal line double, dark, minutely dentate, slightly excurved below vein 7 and at middle; a terminal series of black striæ. Hind wing uniform fuscous brown; the underside paler.

Ab. 1. Fore wing without whitish on the antemedial area and with a dark brown patch beyond the antemedial line from cell to inner margin.

Ab. 2. Fore wing without whitish on antemedial area or dark patch beyond the antemedial line.

Hab. Selangor, Semangho (*Robinson*), 1 ♀ ; Perak, Goping (*Künstler*), 1 ♀ ; Singapore, (*Ridley*, *Wood-Jones*), 12 ♂, 10 ♀ ; Borneo, Sarawak (*Wallace*), 4 ♀ type and types *ferrimissalis* and *costella*. *Exp.* 20–24 millim.

6478. **Gyrtona atribasalis**, n. sp. (Plate CLXXX. fig. 4.)

♀. Head and thorax ochreous brown with a black fascia on vertex of head and tegulæ; palpi and sides of frons dark brown ; fore and mid legs dark brown, the tarsi blackish with pale rings ; abdomen grey-brown with slight blackish dorsal marks, the ventral surface ochreous white towards base. Fore wing reddish brown suffused with fuscous; the basal area black-brown except at inner margin, bounded by the double antemedial line filled in with ochreous, which is very obliquely excurved from costa to just below the cell, then oblique to inner margin and slightly excurved at vein 1 and with a slight pale streak before it in submedian fold ; a curved blackish medial line from subcostal nervure to vein 1 with ridges of raised black scales on it in cell and before it in submedian interspace ; reniform represented by a minute black and whitish striga on its inner side in lower part of cell and three on its outer edge ; postmedial line hardly traceable, pale, dentate, angled outwards below costa and at vein 4, then oblique and angled outwards at vein 1 ; some slight dark streaks on terminal part of costa and a slight black streak below vein 8 towards termen ; a pale subterminal spot above tornus ; a terminal series of black striæ defined on inner side by pale striæ. Hind wing brown, the interspaces whitish except towards termen ; the underside with traces of a diffused curved postmedial line.

Hab. Sikhim (*Möller*), 1 ♀ type. *Exp.* 30 millim.

List of Unrecognized Species.

Stictoptera penicillum, Herr.-Schäff. Corresp.-blatt. zool.-min. Ver. Regensb. xxii. p. 185 (1868).—Cuba.

Audea hemihyala, Karsch, Ent. Nachr. xxii. p. 230 (1896): ? *Stictoptera*.—W. Africa.

Subfamily SARROTHRIPINÆ.

Proboscis almost always fully developed, minute in *Triorbis* and *Iscadia*; palpi usually long and upturned or with the 2nd joint oblique and fringed with hair above, the 3rd usually long and sometimes dilated at extremity, often porrect; frons smooth except in *Poliothripa*, *Triorbis*, and *Calathusa*; eyes large, naked, without cilia from their margins; antennæ usually ciliated, often somewhat laminate and almost simple, rarely pectinated; head and thorax clothed almost entirely with scales, usually without crests or with depressed crest on metathorax, sometimes with spreading crests on pro- and metathorax, in *Ochthophora* the metathorax with very large oblique crest; tibiæ without spines or claws, the fore tibiæ often fringed on both sides with long hair; abdomen usually with one or two crests at base, rarely with a dorsal series of crests. Fore wing usually rather narrow, the costa arched at base and the margins subparallel, sometimes more triangular, in *Œdicraspis* with the costa slightly lobed just beyond middle, the termen usually evenly curved, sometimes oblique or excised towards tornus; vein 1 *a* weak and not anastomosing with 1 *b*; 1 *c* absent; 2 from middle of cell; 3 and 5 from near lower angle, in *Apothripa* veins 3, 4 stalked; 6 from or from below upper angle; 9 usually from 10 anastomosing with 8 to form an areole which is often very long and narrow or both 9 and 10 anastomosing with 7, 8 to form a minute areole, or the areole obsolete and veins 7, 8, 9 or 7, 8, 9, 10 stalked, in *Sarrothripus* the areole is often absent by vein 7 having become disconnected, this occurring as a varietal form in many of the species; vein 11 from cell. Hind wing with veins 1 *a* and 1 *b* present, 1 *c* absent; 3, 4 from cell or often strongly stalked or coincident; vein 5 fully developed, from or from near lower angle of cell, often stalked with 3; 6, 7 from upper angle; 8 usually anastomosing with the cell to middle, sometimes near base only.

The fore wing of male has a strong bar-shaped retinaculum usually more or less curled round the frenulum at its tip, and there are, except in *Eligma*, slight tufts of scales in middle of cell and on discocellulars, sometimes also on the ante-, postmedial, and subterminal lines.

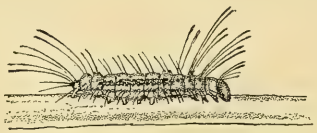


Fig. 71.—Larva of *Selepa celtis*. ½.

The larvæ have all the prolegs present and are sparsely covered with hair; they form a boat-shaped cocoon of silk, often with angular projection on dorsum in front, sometimes covered with fæces.

The subfamily is a slight development from the *Acontianæ*, from which it is distinguished by the small tufts of scales on the fore wing, the two subfamilies being distinguished from the other subfamilies of Quadrifid *Noctuidæ* by the bar-shaped retinaculum in the male.

Key to the Genera.

A. Fore wing with veins 7, 8, 9,10 stalked.
  a. Hind wing with vein 4 absent.
    a^1. Hind wing with veins 3 and 5 stalked..... ETANNA, p. 224.
    b^1. Hind wing with veins 3 and 5 from cell ... MICROTHRIPA, p. 226.
  b. Hind wing with vein 4 stalked with 3.
    a^1. Fore wing with veins 3, 4 stalked ..... APOTHRIPA, p. 249.
    b^1. Fore wing with veins 3, 4 from cell..... NANAGUNA, p. 251.
B. Fore wing with veins 7, 8, 9 stalked, 10 from cell.
  a. Hind wing with vein 4 absent ..... HESPEROTHRIPA, p. 227.
  b. Hind wing with vein 4 stalked with 3 ..... ELESMA, p. 369.
C. Fore wing with veins 9 and 10 anastomosing with 7, 8 to form a minute areole.
  a. Hind wing with vein 4 absent ..... GARELLA, p. 227.
  b. Hind wing with vein 4 present.
    a^1. Palpi with the 2nd joint porrect and broadly fringed with scales above..... ..... GYRTOTHRIPA, p. 448.
    b^1. Palpi upturned.
      a^2. Abdomen with dorsal crests on basal segments..... TATHOTHRIPA, p. 307.
      b^2. Abdomen without crests ..... STICTOTHRIPA, p. 450.
D. Fore wing with vein 9 from 10 anastomosing with 8 to form the areole, 7 sometimes disconnected.
  a. Hind wing with vein 4 absent, or rarely from 3 just below termen.
    a^1. Hind wing with veins 3 and 5 stalked.
      a^2. Fore wing with vein 7 from cell, 8, 9, 10 stalked ..... DILOPHOTHRIPA, p. 239.
      b^2. Fore wing with the areole long, vein 7 from the areole..... CHARACOMA, p. 229.
      c^2. Fore wing with the areole moderate, vein 7 from well beyond it ..... ELÆOGNATHA, p. 370.
    b^1. Hind wing with veins 3 and 5 from cell.
      a^2. Palpi with the 2nd joint fringed with hair above towards extremity ..... STENISCADIA, p. 376.
      b^2. Palpi with the 2nd joint not fringed with hair above towards extremity.
        a^3. Fore wing with vein 7 from cell, 8, 9, 10 stalked ..... SYMITHA, p. 243.
        b^3. Fore wing with long areole ..... PARDASENA, p. 245.
  b. Hind wing with vein 4 present.
    a^1. Fore wing with the areole long and narrow, or vein 7 separate.
      a^2. Hind wing with veins 3, 4 stalked.
        a^3. Abdomen with dorsal series of crests, the crests on 4th and 5th segments very large ..... LOPHOTHRIPA, p. 258.
        b^3. Abdomen with dorsal crests on basal segments only.
          a^4. Palpi with the 2nd joint very broadly rounded, with scales in front.

a^5. Palpi with the 3rd joint very long and fringed with hair behind; fore wing with vein 7 from cell, 8, 9, 10 stalked ... (Chloethripa, p. 259.

b^5. Palpi with the 3rd joint moderate and smoothly scaled; fore wing with long areole ..... (Mniothripa, p. 260.

b^4. Palpi with the 2nd joint moderately scaled ..... (Aquis, p. 385.

c^3. Abdomen with basal crest only.

a^4. Palpi with the 2nd joint oblique, the 3rd porrect and fringed with hair above ..... —Sarrothripus, p. 261.

b^4. Palpi with the 3rd joint upturned, naked ..... (Giaura, p. 276.

b^2. Hind wing with vein 3 from the cell.

a^3. Hind wing with vein 3 from before angle of cell, 4, 5 from angle or stalked.

a^4. Palpi with the 3rd joint long.

a^5. Metathorax with very large oblique flattened crest ..... (Ochthophora, p. 368.

b^5. Metathorax with spreading crest.

a^6. Abdomen with basal crest..... (Ptisciana, p. 286.

b^6. Abdomen without crest..... —Micriscadia, p. 377.

b^4. Palpi with the 3rd joint short.

a^5. Fore wing with vein 7 from cell, 8, 9, 10 stalked ..... (Phleothripa, p. 318.

b^5. Fore wing with long narrow areole.

a^6 Fore wing with scale-tooth at tornus..... (Gryposoba, p. 423.

b^6. Fore wing without scale-tooth at tornus ..... —Casandria, p. 350.

b^3. Hind wing with veins 3, 4 from angle of cell, 5 from above angle.

a^4. Abdomen with dorsal series of crests.

a^5. Palpi with the 3rd joint very long and somewhat dilated at extremity.

a^6. Palpi with the 2nd joint fringed with hair above towards extremity.

a^7. Palpi porrect.

a^8. Fore wing with the termen truncate and very oblique towards tornus ..... —Lophosema, p. 332.

b^8. Fore wing with the termen evenly curved .... (Plotheia, p. 305.

b^7. Palpi upturned ..... —Pucialia, p. 334.

b^6. Palpi with the 2nd joint not fringed with hair above towards extremity.

a^7. Frons with pointed conical prominence ..... —Poliothripa, p. 333.

b^7. Frons smooth ..... (Cryptothripa, p. 309.

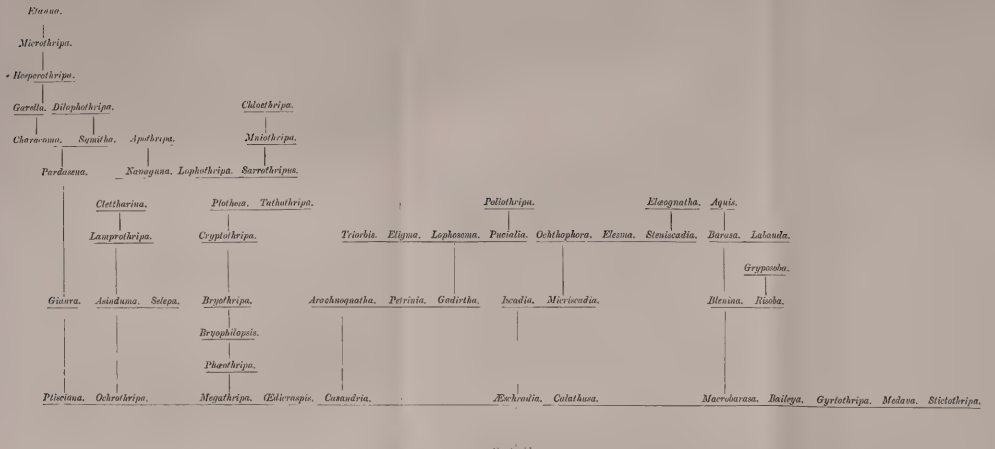
b^5. Palpi with the 3rd joint moderate and not dilated at extremity.

a^6. Fore wing with veins 8, 9, 10 stalked, 7 from cell ..... (Petrinia, p. 323.

GEN

qma. Lop

rinia. Ga


Etanna.
Microthripa.
Hesperothripa.
Garella. Diliophothripa. Chloethripa.
Charanoma. Squitha. Apothripa. Muiothripa.
Pardasena. Navagina. Lophothripa. Sarrothripa.
Clettharina. Plothea. Tathothripa. Poliothripa. Elæognatha. Aquis.
Lamprothripa. Cryptothripa. Triorbis. Etigma. Lophosema. Pucialia. Ochthophora. Elesma. Steniscadia. Barusa. Labauda.
Grypoxoba.
Giduva. Asinduna. Selepa. Bryothripa. Arachnognatha. Petrinia. Gadirtha. Isoadia. Mierioeadia. Blenina. Risoba.
Bryophilopsis.
Phæothripa.
Ptiseiana. Ochrothripa. Megathripa. Œdicnopis. Cusandria. Æchrodia. Calathusa. Macrobarasa. Bailega. Gyrtothripa. Melava. Stictothripa.

Gyrtonidæ.

b^6. Fore wing with an areole.
a^7. Palpi with the 2nd joint reaching vertex of head, the 3rd long ..... (Bryothripa, p. 310.
b^7. Palpi with the 2nd joint reaching middle of frons, the 3rd short ..... (Bryophilopsis, p. 311.
(b^4. Abdomen with dorsal crests on two basal segments.
a^5. Fore tibiæ fringed with long hair; hind wing with vein 8 anastomosing with the cell to middle.
a^6. Palpi with the 2nd joint reaching to well above vertex of head and fringed with hair behind towards extremity ... (Clethrina, p. 287.
b^6. Palpi with the 2nd joint reaching to vertex of head and not fringed with hair behind towards extremity ..... (Lamprothripa, p. 288.
b^5. Fore tibiæ smoothly scaled; hind wing with vein 8 anastomosing with the cell near base only.
a^6. Fore wing with vein 7 from the cell, 8, 9, 10 stalked ..... (Megathripa, p. 319.
b^6. Fore wing with long areole.
a^7. Fore wing with the costa highly arched near base, the costa and inner margin subparallel ..... (Asinduma, p. 292.
b^7. Fore wing more triangular, the costa not highly arched near base.
a^8. Build slender; abdomen very long especially in male ..... (Labanda, p. 393.
b^8. Build stout; abdomen of normal length ..... (Blenina, p. 401.
c^4. Abdomen without crests.
a^5. Palpi with the 3rd joint long and dilated at extremity.
a^6. Fore wing with vein 7 from cell, 8, 9, 10 stalked ..... —Medava, p. 450.
b^6. Fore wing with long areole ... —Eschradia, p. 378.
b^5. Palpi with the 3rd joint short.
a^6. Palpi with the 2nd joint not fringed with hair behind at extremity, the 3rd upturned —Baileya, p. 444.
b^6. Palpi with the 2nd joint slightly fringed with hair behind at extremity, the 3rd porrect ... —Gyrtonides, p. 453.
c^3. Hind wing with vein 3 from before angle of cell, 5 from above angle.
a^4. Proboscis aborted, minute.
a^5. Frons with vertical ridge of hair..... (Triorbis, p. 324.
b^5. Frons smooth ..... (Eligma, p. 326.
b^4. Proboscis fully developed; frons smooth.
a^5. Palpi porrect and fringed with hair above ..... (Arachnognatha, p. 321.

b^5. Palpi upturned, not fringed with hair above.
a^6. Palpi with the 3rd joint long and somewhat dilated at extremity ..... (Ochrothripa, p. 317.
b^6. Palpi with the 3rd joint short.
a^7. Abdomen with minute crests on medial segments ..... (Risoba, p. 424.
b^7. Abdomen with dorsal crest at base only ..... (Macrobarasa, p. 442.
b^1. Fore wing with the areole short.
a^2. Hind wing with veins 3, 4 strongly stalked ..... (Barasa, p. 388.
b^2. Hind wing with veins 3, 4 from cell or shortly stalked.
a^3. Palpi downcurved and fringed with hair above ..... (Selepa, p. 294.
b^3. Palpi upturned, the 2nd joint fringed with hair behind towards extremity.
a^4. Abdomen with dorsal series of crests ..... (Gadirtha, p. 339.
b^4. Abdomen with dorsal crest at base only ..... Iscadia, p. 362.
c^4. Abdomen without crests.
a^5. Frons surrounded by a slight raised ring; fore wing with the costa evenly arched ..... (Calathusa, p. 379.
b^5. Frons smooth; fore wing with the costa lobed just beyond middle ..... (Œdicraspis, p. 320.

Genus **ETANNA**.

	Type.
Etanna, Wlk. Journ. Linn. Soc., Zool. vi. p. 118 (1862)	*basalis*.
Andrapha, Wlk. xxxv. 1741 (1866)	*basalis*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and slightly fringed with hair above towards extremity in female, in male with large tuft of hair, the 3rd rather long; frons smooth; eyes large, round; antennæ of male minutely ciliated; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen evenly curved and not crenulate; vein 3 from near angle of cell; 4, 5 shortly stalked; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell; male with tuft of long hair on underside from near base of cell covering a patch of androconia in end of cell. Hind wing with veins 3 and 5 stalked, 4 absent, coincident with 3; the discocellulars almost obsolete; 6, 7 shortly stalked; 8 anastomosing with the cell to middle; male with the costa strongly lobed and fringed with rough hair, the apex with a large triangular excision, veins 7, 8 bent upwards to costa.

A. Fore wing with the antemedial and medial area not white.	
a. Fore wing with the medial area suffused with black except towards inner margin	*maccvoodi*.
b. Fore wing with black fascia from costa near base along median nervure to lower angle of cell	*atrifasciata*.
B. Fore wing white from subbasal line to near postmedial line	*basalis*.

6479. Etanna maccvoodi.

Dendrothripa mackwoodi, Hmpsn. J. Bomb. Nat. Hist. Soc. xiv. p. 211 (1902).

♂. Head, thorax, and abdomen ochreous white; the tuft of hair from upperside of palpi fuscous. Fore wing ochreous tinged with green; the basal and medial areas grey tinged with fuscous to submedian fold; a medial blackish line slightly excurved below costa and strongly above inner margin, some blackish suffusion beyond it; postmedial line black, rather punctiform and defined on outer side by whitish, oblique towards costa, excurved between veins 7 and 4,

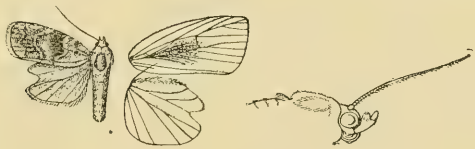


Fig. 72.—*Etanna maccvoodi*, ♂. ¾.

then incurved, a patch of grey and purplish red suffusion beyond it at middle extending to termen below apex; a fine black terminal line; cilia whitish, tinged with brown. Hind wing white slightly tinged with ochreous brown especially on costal and terminal areas, some slight black irroration in end of cell, underside of fore wing and costal area of hind wing suffused with purplish pink, the tuft of hair in cell yellow and the androconia red-brown.

Hab. Ceylon, Colombo (*Mackwood*), 1 ♂ type. *Exp.* 16 millim.

6480. Etanna atrifasciata. (Plate CLXXX. fig. 7.)

Dendrothripa atrifasciata, Hmpsn. Moths Ind. iv. p. 528 (1896).

♀. Head, thorax, and abdomen white tinged with ochreous brown; palpi with the 3rd joint tinged with fuscous at base. Fore wing whitish tinged with pale ochreous brown; a black fascia from costa near base, thence above submedian fold extending into lower part of cell, and beyond the discocellulars bent upwards to base of vein 6; postmedial line very indistinct, blackish defined on outer side by whitish, oblique towards costa, excurved to vein 4, then incurved. Hind wing white slightly tinged with brown.

Hab. Ceylon, Nawalapitiya (*Pole*), 1 ♀ type. *Exp.* 16 millim.

6481. Etanna basalis. (Plate CLXXX. fig. 8.)

Etanna basalis, Wlk. Journ. Linn. Soc., Zool. vi. p. 119 (1862).
Andrapha basalis, Wlk. xxxv. 1742 (1866).

♀. Head and thorax ochreous mixed with some brown and white; pectus and legs whitish; abdomen pale reddish brown. Fore wing ochreous suffused in parts with fuscous brown; a large white patch

defined by blackish scales extending from near base to beyond the cell, to costa on antemedial area and down to vein 1; postmedial line blackish, punctiform, oblique towards costa and excurved between veins 7 and 4, a patch of reddish brown suffusion beyond its medial part extending to termen below apex; some blackish points on costa towards apex; a fine black terminal line; cilia tinged with black and rufous. Hind wing white, the veins and terminal area tinged with brown; a slight brownish line near base of cilia.

Hab. Burma, Rangoon, 1 ♀; Borneo, Sarawak (*Wallace*), 1 ♀ type *Andrapha basalis*. *Exp.* 18 millim. Type † in Mus. Oxon.

Genus **MICROTHRIPA**, nov.

Type, *M. bœota*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and moderately scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of female minutely ciliated; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen evenly curved and not crenulate; vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3 and 5 from angle of cell, 4 absent, coincident with 3; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

6482. Microthripa bœota.

Dendrothripa bœota, Turner, P. Linn. Soc. N. S. W. xxvii. p. 93 (1902).

♀. Head and thorax grey-white slightly mixed with fuscous; palpi tinged with brown; abdomen white tinged with brownish ochreous; pectus and ventral surface of abdomen white. Fore wing grey-white slightly suffused in parts with fuscous; subbasal line black, oblique, from costa to submedian fold; antemedial line double,

Fig. 73.—*Microthripa bœota*, ♀. ⅔.

black, oblique, slightly sinuous; an oblique black striga from middle of costa and black discoidal point; postmedial line black and oblique towards costa, then very indistinct, bent outwards below costa, then oblique and minutely dentate; subterminal line indistinct, fuscous, minutely waved; a terminal series of black points. Hind wing white, the veins and termen tinged with pale brown.

Hab. Queensland, Townsville (*Dodd*), 1 ♀. *Exp.* 14 millim.

Genus **HESPEROTHRIPA**, nov.

Type, *H. dicyma*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to above vertex of head and rather slenderly scaled, the 3rd long; frons smooth; eyes large, round; antennæ of female minutely ciliated; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with veins 3 and 5 from angle of cell, 4 absent, coincident with 3; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

6483. **Hesperothripa dicyma**, n. sp.

♀. Head, thorax, and abdomen grey-white slightly tinged with brown; palpi tinged with fuscous at sides. Fore wing grey slightly tinged and irrorated with pale brown; a subbasal black striga from costa; antemedial line oblique, blackish, sinuous; a slight blackish

Fig. 74.—*Hesperothripa dicyma*, ♀. $\frac{3}{2}$.

discoidal striga; postmedial line blackish, excurved from below costa to vein 4, then oblique; subterminal line rather diffused, blackish, excurved below vein 7 and at middle; a terminal series of black points. Hind wing white faintly tinged with brown.

Hab. Sierra Leone (*Clements*), 1 ♀ type. *Exp.* 20 millim.

Genus **GARELLA**.

	Type.
Garella, Wlk. Journ. Linn. Soc., Zool. vii. p. 51 (1864).....	*rotundipennis*.
Dendrothripa, Hmpsn. Moths Ind. iv. p. 527 (1896)	*rotundipennis*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and moderately scaled, the 3rd rather long; frons smooth; eyes large, round; antennæ of male almost simple; thorax clothed almost entirely with scales, the metathorax with depressed crest; tibiæ slightly fringed with hair; abdomen with dorsal crests on two basal segments. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 and 10 anastomosing with 7 and 8 to form a minute areole; 11 from cell. Hind wing with veins 3 and 5 stalked, 4 absent, coincident with 3; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

A. Fore wing with the postmedial line strongly excurved between veins 6 and 4	*rotundipennis*.
B. Fore wing with the postmedial line slightly excurved between veins 6 and 4	*nubilosa*.

6484. Garella rotundipennis.

Garella rotundipennis, Wlk. Journ. Linn. Soc., Zool. vii. p. 52 (1864); Swinh. Cat. Het. Mus. Oxon. ii. p. 78, pl. ii. f. 23.
Dendrothripa rufipuncta, Hmpsn. Moths Ind. iv. p. 527 (1896).

Head, thorax, and abdomen grey tinged with ochreous brown, the tegulæ with blackish band near tips; palpi with fuscous spots at sides of joints; tarsi blackish ringed with white; pectus and ventral surface of abdomen whitish. Fore wing greyish tinged with ochreous brown and some fuscous; subbasal line slight, blackish, from costa to submedian fold: antemedial line blackish, oblique to median nervure, then almost obsolete, excurved above inner margin; medial line black defined on inner side by white and with black points at the veins, excurved, slightly angled inwards at vein 1;

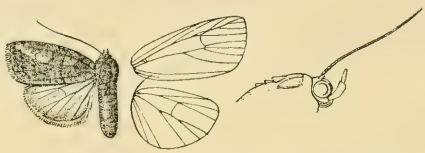


Fig. 75.—*Garella rotundipennis*, ♂. ¾.

a slight rufous discoidal lunule; vein 2 defined by slight black streaks from the cell to postmedial line, which is black defined on outer side by white and with black points at the veins, oblique to vein 6, excurved to vein 4, then incurved and again excurved at vein 1, a rufous spot beyond it in submedian interspace; some black points on costa towards apex; traces of a pale waved subterminal line defined on inner side by small black spots; a terminal series of black points. Hind wing white, the veins and terminal areas suffused with brown.

Ab. 1. Fore wing with rounded black patch on antemedial costal area.

Hab. Punjab, Simla, 1 ♀, Kangra (*Hocking*), 1 ♀ type *rufipuncta*; Ceylon, Diyatalawa (*Green*), 1 ♀; Burma, Rangoon (*Scott*), 1 ♀; Borneo, Sarawak (*Wallace*), 1 ♀; Queensland, Townsville (*Dodd*), 1 ♂. *Exp.* 18–20 millim. Type † in Mus. Oxon.

6485. Garella nubilosa, n. sp. (Plate CLXXX. fig. 9.)

♂. Head and thorax brownish grey mixed with fuscous; abdomen whitish tinged with brown; pectus and ventral surface of abdomen whitish. Fore wing grey suffused with olive-fuscous and brownish; subbasal line slight, blackish, excurved below costa and ending at submedian fold; antemedial line almost medial, black, oblique to discal fold, then erect; a black discoidal point; postmedial line rather diffused, black, oblique to vein 6 and slightly incurved below vein 4; subterminal line diffused, blackish, somewhat excurved

below vein 7 and at middle; a terminal series of blackish points. Hind wing white, the costal area and terminal area to vein 2 tinged with brown; the underside with the costal area white with diffused brownish spot beyond middle.

Hab. Br. E. Africa, Njoro (*Cholmley*), 1 ♂ type. *Exp.* 20 millim.

Genus **CHARACOMA.**

	Type.
Characoma, Wlk. xxvii. 106 (1863)	*albulalis.*
Corticata, Wlk. Journ. Linn. Soc., Zool. vii. p. 52 (1864)	*scoparioides.*
Paraxia, Möschl. Abh. Senck. Ges. xvi. p. 120 (1890)	*nilotica.*
Hypothripa, Hmpsn. Moths Ind. ii. p. 383 (1894)	*curiosa.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd long; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales, the metathorax with large spreading crest; tibiæ moderately fringed with hair; abdomen typically with dorsal crests on basal segments only. Fore wing short and broad, the costa highly arched near base, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long narrow areole; 11 from cell. Hind wing with vein 2 from towards angle of cell; 3 and 5 stalked, 4 coincident with 3; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

Sect. I. (*Corticata.*) Abdomen with dorsal crests on two basal segments.

A. Fore wing with double oblique sinuous antemedial line.
  a. Fore wing with large rounded brown apical patch ... *curiosa.*
  b. Fore wing without dark apical patch ... *vallata.*
B. Fore wing with the antemedial line single, erect, and almost medial.
  a. Fore wing tinged with rufous and with small blood-red spot in submedian fold beyond postmedial line ... *scoparioides.*
  b. Fore wing purplish grey suffused with fuscous brown . *nilotica.*

6486. **Characoma curiosa.** (Plate CLXXX. fig. 10.)

Sclepa curiosa, Swinh. Trans. Ent. Soc. 1890, p. 235; Hmpsn. Moths Ind. ii. p. 383.

Head, thorax, and abdomen brown mixed with grey; tegulæ with black line near tips; abdomen with the crests blackish; palpi with some black at sides of 1st and 2nd joints; tarsi black ringed with white. Fore wing grey-white with a violaceous tinge, slightly suffused in parts with red-brown especially on inner area; antemedial line double, blackish, excurved, strongly angled inwards in submedian fold; an indistinct oblique slightly sinuous medial line; a slight white discoidal lunule defined on outer side by some blackish scales; postmedial line dark brown defined on outer side by white, the line punctiform except on inner area, oblique from costa to vein 6, then dentate, excurved to vein 4, then incurved, some small black-brown spots beyond it on costa; subterminal line dark brown,

slight, incurved below costa where there is a dark brown apical patch beyond it, then minutely dentate; a terminal series of dark brown points. Hind wing white, the terminal area and cilia tinged with brown from apex to vein 2; the underside with the costal area suffused with fuscous except towards base.

Hab. Burma, Rangoon, 1 ♂, 1 ♀ type. *Exp.* ♂ 24, ♀ 26 millim.

6487. **Characoma vallata.** (Plate CLXXX. fig. 11.)

Hypothripa vallata, Meyr. Trans. Ent. Soc. 1902, p. 47.

Head and thorax grey mixed with dark brown and red-brown; abdomen grey tinged with brown, the crests darker; palpi with blackish spots at sides of 1st and 2nd joints; tarsi brown ringed with white; pectus and ventral surface of abdomen white. Fore wing grey more or less suffused with red-brown and fuscous brown and with some dark irroration; subbasal line represented by black striæ from costa and cell; antemedial line rather indistinct, blackish, double, oblique, sinuous; medial line slight, oblique, sinuous; an oblique red-brown discoidal striga; postmedial line blackish defined on outer side by white, oblique and sinuous to vein 6, slightly incurved at discal fold, then excurved at median nervules and vein 1, a more or less prominent patch of fuscous suffusion beyond it on costa; subterminal line indistinct, diffused, whitish defined on inner side by fuscous, excurved below vein 7 and at middle; a terminal series of black points. Hind wing white, the termen suffused with brown except at tornus.

Ab. 1. Fore wing with the basal area suffused with black.

Hab. Queensland, Brisbane (*Turner*), 3 ♂, 1 ♀. *Exp.* 20–24 millim.

6488. **Characoma scoparioides.**

Corticata scoparioides, Wlk. Journ. Linn. Soc., Zool. vii. p. 53 (1864); Swinh. Cat. Het. Mus. Oxon. ii. p. 78, pl. ii. f. 22.

♀. Head, thorax, and abdomen rufous mixed with grey; fore tarsi with black rings towards extremity, the mid tibiæ at base; pectus and ventral surface of abdomen whitish. Fore wing rufous mixed with grey and irrorated with a few black scales; a black streak below costa from base to the slight black subbasal line, which is somewhat angled outwards at median nervure; antemedial line almost medial, sinuous, blackish; a slight black discoidal point and some slight black streaks between lower angle of cell and the postmedial line, which is oblique from costa to vein 6, slightly angled inwards at discal fold, excurved at median nervules, then incurved and again excurved at vein 1, a blood-red spot beyond it in submedian fold; a faint dentate blackish subterminal line defined by grey; a terminal series of black points. Hind wing whitish tinged with brown especially on the veins and termen.

Hab. Ceylon, Colombo (*Mackwood*), 1 ♀; Borneo, Sarawak (*Wallace*), type † in Mus. Oxon. *Exp.* 16 millim.

6489. Characoma nilotica.

Sarrothripa nilotica, Rogenh. Verh. zool.-bot. Ges. Wien, 1881, p. 26; Staud. Cat. Lep. pal. p. 361.
Paraxia chamæleon, Möschl. Abh. Senck. Ges. xvi. p. 121 (1890); Kirby, Cat. Lep. Het. p. 378.
Cletthara littora, Beth.-Baker, Trans. Ent. Soc. 1894, p. 35, pl. i. f. 2; Staud. Cat. Lep. pal. p. 361.
Thalpochares laurea, Druce, Biol. Centr.-Am., Het. ii. p. 497, pl. 95. ff. 26, 27 (1898).

Head and thorax grey mixed with dark brown; palpi with the 3rd joint blackish; fore tarsi blackish ringed with white; abdomen whitish tinged with brown. Fore wing grey suffused and irrorated with fuscous brown; subbasal line indistinct, somewhat sinuous, more or less distinctly double from costa to submedian fold; antemedial line almost medial, slight, sinuous, blackish; a slight black

Fig. 76.—*Characoma nilotica*, ♂. ⅔.

discoidal point and slight streaks on vein 2 and in submedian fold before the postmedial line, which is oblique from costa to vein 6, slightly angled inwards at discal fold, excurved at median nervules, then incurved and again excurved at vein 1; subterminal line blackish defined on outer side by grey, somewhat dentate, excurved below vein 7 and at middle; a terminal series of black points. Hind wing white, the veins and termen suffused with brown.

Ab. 1. Fore wing with black band on inner antemedial line.

Ab. 2. Fore wing with rounded black patch on subbasal costal area.

Ab. 3. Fore wing with medial black spot in submedian interspace.

Ab. 4. Fore wing with the basal and inner areas suffused with brown.

Hab. U.S.A., Texas, 1 ♀; Mexico (*Schaus*), 2 ♂, 3 ♀, Jalapa (*Trujillo*), 1 ♂, 6 ♀, Amula (*H. H. Smith*), 1 ♂, 2 ♀ type *laurea*, Godman-Salvin Coll.; Honduras (*Robertson*), 1 ♀; Costa Rica, Tuis; Bahamas, Nassau (*Sir G. Carter*), 4 ♂, 7 ♀; Grand Cayman (*Nicholl*), 1 ♀; Cuba, 1 ♂, Baracoa (*Schaus*), 1 ♂; Porto Rico, 1 ♀; Canaries, Teneriffe (*Walsingham*), 1 ♂; Sierra Leone (*Clements*), 1 ♀; Gambia, Bathurst (*Carter*), 1 ♂, 1 ♀; S. Nigeria, Lagos (*Dudgeon*), 1 ♂; N. Nigeria, Zungeru (*Macfie*), 1 ♂; Egypt, Alexandria, type † ♂ *littora* in Coll. Bethune-Baker; Madras, Horsleykonda (*Campbell*), 1 ♀; Ceylon, Trincomali (*Yerbury*), 1 ♀. *Exp.* 14–18 millim. Type † *chamæleon* in Mus. Berlin.

Larva on *Tamarix articulata*.

Sect. II. Abdomen with dorsal crest at base only.

A. (*Characoma.*) Palpi of male with the 3rd joint tufted with long hair.

6490. Characoma albulalis.

Characoma albulalis, Wlk. xxvii. 107 (1863).

♂. Head and thorax grey-white mixed with pale brown; fore femora and tibiæ and mid tibiæ at base blackish; fore tarsi banded with blackish; abdomen grey-brown, the ventral surface whitish. Fore wing white mixed with pale brown, the basal area to submedian fold and the costal area from antemedial to subterminal line suffused with pale olive-brown; subbasal line black, waved, from costa to submedian fold, with black streaks before it below costa and in submedian fold; antemedial line almost medial, black defined

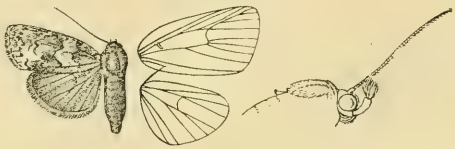


Fig. 77.—*Characoma albulalis*, ♂. ½.

on inner side by white, oblique, sinuous, a diffused black patch between it and postmedial line in submedian interspace; postmedial line black, oblique and sinuous from costa to vein 6, then erect, waved, some slight oblique black streaks beyond it below the costa; subterminal line white defined on inner side by dentate black marks, excurved below vein 7 and at middle; a terminal series of small triangular black spots. Hind wing white suffused with brown especially on terminal area; cilia paler; the underside whitish, the costal and terminal areas suffused with brown.

Hab. Borneo, Sarawak (*Wallace*), 1 ♂ type. *Exp.* 30 millim.

B. Palpi of male with the 3rd joint naked.

a. Fore wing of male with fovea below base of cell.

*6491. Characoma sexilinea.

Hypothripa sexilinea, Beth.-Baker, A. M. N. H. (8) iii. p. 430 (1909).

♂. Head and thorax grey-white irrorated with a few black scales; palpi with black band at base of 3rd joint; antennæ black except at base; fore tibiæ and the tarsi fuscous ringed with whitish; abdomen grey, dorsally suffused with fuscous brown. Fore wing grey-white; a black point at base of costa; an obliquely curved black subbasal line from costa to vein 1 near base; antemedial line double, black, oblique from costa to submedian fold, then inwardly oblique, the outer line with small black spot at costa, a small V-shaped black mark beyond it below the cell; a black

discoidal striga; an inwardly oblique black striga from middle of costa with a wedge-shaped fuscous patch beyond it; postmedial line double, black, arising from lower edge of the fuscous patch, excurved to vein 4, then incurved, a curved black line from it at submedian fold to inner margin near tornus; subterminal line

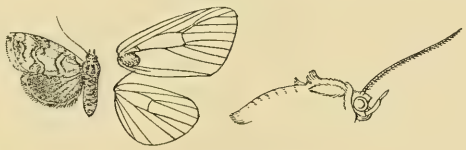


Fig. 78.—*Characoma sexilinea*, ♂. ½.

black, excurved below vein 7 and at middle, incurved at discal fold and ending below vein 3; an oblique black shade from cilia below apex, its inner extremity bent downwards; a terminal series of small black lunules; cilia whitish with fine black lines near base and tips. Hind wing grey-white suffused with fuscous; the underside fuscous, the cell and inner area whitish.

Hab. Congo Free State, Makala Distr. (*Powell-Cotton*), type † ♂ in Coll. Bethune-Baker. *Exp.* 22 millim.

b. Hind wing of male with the termen truncate towards tornus which is lobed and with tufts of long hair, the inner margin short; vein 4 from 3 just before termen in male only.

6492. Characoma metalophota.

Blenina metalophota, Hmpsn. Moths Ind. iv. p. 526 (1896).

Head and thorax white mixed with rufous and some black scales, the tegulæ with slight dark line near tips; antennæ fuscous except towards base; fore tibiæ with some black points, the tarsi black ringed with white, the mid tarsi black at tips; abdomen fuscous brown, paler at base, the ventral surface white. Fore wing white tinged in parts with rufous and irrorated with fuscous; subbasal line black, waved, from costa to submedian fold, a black streak

Fig. 79.—*Characoma metalophota*, ♂. ½.

before it in cell; antemedial line black, oblique, waved, with oblique black streaks above and below vein 2 from it to postmedial line; reniform indicated by some slight black marks; postmedial line black, oblique and slightly sinuous from costa to vein 6 where

it is angled, angled inwards at discal fold, incurved below vein 4, excurved at vein 1 and more or less approximated to the antemedial line at inner margin; subterminal line faint, white, defined on inner side by minute dentate black marks, excurved below vein 7 and at middle; a faint oblique blackish shade from apex and a terminal series of minute triangular black spots; cilia with series of fuscous spots. Hind wing semihyaline white, the veins, costa, and termen tinged with brown; male with the extremities of veins 6 and 5 with some yellow hair, the cilia yellowish from vein 5 to tornus, where the tufts of hair on underside are yellow and blackish.

Hab. Assam, Khásis, 1 ♂, 1 ♀ type; Ceylon, Pattipolla (*Alston*), 1 ♀, Gampola (*Mackwood*), 1 ♀; Straits of Malacca (*Meade-Waldo*), 1 ♀; Singapore (*Wood-Jones*, *Ridley*), 2 ♂, 3 ♀. *Exp.* 30–38 millim.

c. Fore and hind wings of male normal.
  a^1. Fore wing with postmedial dark patch on costal area.
    a^2. Fore wing with antemedial dark patch on costal area. *distincta.*
    b^2. Fore wing without antemedial dark patch on costal area.
      a^3. Fore wing tinged with pale olive-green ..... *glaucopasta.*
      b^3. Fore wing not tinged with olive-green.
        a^4. Fore wing with the lines very prominently black. *multilinea.*
        b^4. Fore wing with the lines much slighter.
          a^5. Fore wing silvery grey ..... *phæoleuca.*
          b^5. Fore wing tinged with purplish red..... *ruficirra.*
  b^1. Fore wing without postmedial dark patch on costal area.
    a^2. Fore wing with medial black patch below the cell and oblique patch from termen below apex ..... *glaphyra.*
    b^2. Fore wing without black patches.
      a^3. Fore wing with more or less distinct medial line.
        a^4. Fore wing with the medial line erect to submedian fold, then oblique ..... *polia.*
        b^4. Fore wing with the medial line curved and slightly sinuous.
          a^5. Fore wing tinged with olive-green ..... *miophora.*
          b^5. Fore wing not tinged with olive-green.
            a^6. Fore wing with terminal series of black points *cana.*
            b^6. Fore wing without terminal series of black points..... *deleta.*
        c^4. Fore wing with the medial line absent..... *ferrigrisea.*

6493. **Characoma distincta.** (Plate CLXXX. fig. 12.)

Hypothripa distincta, Beth.-Baker, Nov. Zool. xiii. p. 224 (1906).
Sarrothripa costiplagata, Beth.-Baker, A. M. N. H. (8) vi. p. 444 (1910).

♀. Head and thorax white mixed with rufous, the patagia with some black; palpi with black spots on sides of 1st joint, some black irroration on 2nd joint except at extremity and on 3rd joint; antennæ black except at base; tarsi blackish ringed with white; abdomen whitish suffused with brown. Fore wing white with patches of rufous especially on ante- and postmedial areas, the medial area mostly black below the cell, the terminal area grey;

costal edge black at base with some rufous below it; a subbasal black point below the cell; a black striga from costa before the black antemedial line, which has a diffused black patch before it on costa, oblique, sinuous; postmedial line black, with black patch beyond it on costa, interrupted below costa, then minutely waved and angled inwards in discal fold; subterminal line black slightly defined by white on outer side, interrupted below costa, slightly excurved below vein 7 and at middle, some dentate black marks beyond it below apex; a terminal series of minute black lunules slightly defined by white on inner side. Hind wing white, the terminal half suffused with fuscous; the underside with the costal and terminal areas tinged with brown.

Ab. 1. *costiplagata*. Head, thorax, and fore wing with grey-blue and olive-green replacing the rufous (which is probably due to fading) of the typical form.

Hab. Dutch N. Guinea, Fak-fak (*Pratt*), 1 ♀, Arfak Mts. (*Pratt*), type † ♀ *costiplagata* in Coll. Bethune-Baker; Br. New Guinea, Dinawa (*Pratt*), type † ♀ in Coll. Bethune-Baker. *Exp.* 22 millim.

6494. **Characoma glaucopasta**, n. sp. (Plate CLXXX. fig. 13.)

Head and thorax white mixed with olive-green, the tips of patagia black; palpi white irrorated with brown, the 2nd joint black behind; tarsi brown ringed with white; abdomen white tinged with brown. Fore wing pale olive-green overlaid with white scales; a black point at base of costa; subbasal line black, slightly angled outwards below costa and at subcostal nervure, then incurved and ending at submedian fold; antemedial line black defined on inner side by white, oblique, waved to median nervure, then strongly incurved in submedian interspace; a slight oblique black discoidal striga; postmedial line black defined on outer side by white, angled outwards below costa, excurved at vein 6, angled inwards at discal fold, excurved at middle and strongly incurved in submedian interspace where there is a slight black mark before it, a black patch with two white points on it beyond it on costa; subterminal line black, excurved below vein 7 and at middle and with slight black streaks beyond it towards apex; a terminal series of black points; cilia grey intersected with fuscous. Hind wing whitish tinged with brown, the veins and termen rather darker.

Ab. 1. Thorax and fore wing with less green and more white.—Perak.

Hab. Sikhim (*Möller*), 1 ♂, 4 ♂ type; Assam, Khásis, 1 ♀; Perak (*Doherty*), 1 ♀. *Exp.* 20–22 millim.

*6495. **Characoma multilinea.** (Plate CLXXX. fig. 14.)

Cletthara multilinea, Beth.-Baker, Nov. Zool. xiii. p. 224 (1906).

♀. Head and thorax silvery white slightly irrorated with brown;

palpi with black spot at base of 2nd joint; antennæ black; tegulæ with some black scales near tips; patagia with two black points near tips; fore and mid tibiæ and the tarsi with some brown; abdomen whitish suffused with red-brown, the basal crest white tipped with black. Fore wing silvery white slightly suffused and irrorated in parts with brown; short black streaks near base in and below cell; subbasal line black, angled outwards below costa, excurved at median nervure and ending at vein 1, an oblique black streak beyond it above inner margin; antemedial line black, excurved at subcostal and median nervures and angled inwards in submedian fold, oblique black streaks from its curves at subcostal and median nervures to postmedial line and a short streak on vein 1; postmedial line black, oblique towards costa and slightly angled outwards below costa, angled inwards and forming a short streak at discal fold, then excurved, angled inwards at vein 2 and submedian fold and again excurved above inner margin, a black patch with white point on it beyond it on costa; subterminal line black, slightly angled inwards below costa and at discal and submedian folds and excurved between those points; a terminal series of small wedge-shaped black marks with slight blackish streaks before them towards apex; cilia chequered white and blackish. Hind wing white tinged with fuscous especially on terminal half from apex to vein 2.

Hab. Br. N. Guinea, Aroa R. (*Meek*), type † ♀ in Coll. Rothschild. *Exp.* 26 millim.

6496. **Characoma phæoleuca**, n. sp. (Plate CLXXX. fig. 15.)

♂. Head and thorax white mixed with some brown; abdomen grey-white, the basal crest with some brown mixed, the ventral surface white. Fore wing white slightly irrorated with fuscous brown and ochreous, especially on inner area; a sinuous blackish subbasal line from costa to submedian fold; antemedial line blackish defined on inner side by white, oblique, waved; a minute black streak in end of cell; postmedial line black defined on outer side by white, oblique and waved from costa to vein 6, angled inwards at discal fold, then excurved at median nervules and vein 1, a patch of fuscous suffusion beyond it on costa; subterminal line blackish, interrupted, defined on inner side by minute dentate black marks, excurved below vein 7 and at middle; some brownish suffusion before termen except towards apex; a terminal series of black points. Hind wing white tinged with brown, the terminal half suffused with fuscous brown; cilia white tinged with brown.

Hab. Ceylon, Maskeliya (*Green*), 1 ♂ type. *Exp.* 28 millim.

6497. **Characoma ruficirra.**

Hypothripa ruficirra, Hmpsn. A. M. N. H. (7) xvi. p. 540 (1905).

Head, thorax, and abdomen grey, the two former with brown slightly mixed. Fore wing grey; a reddish brown antemedial shade

from costa to submedian fold with two lines on it formed of raised black scales; an indistinct slightly waved medial line; traces of a dark discoidal point; postmedial line bent outwards with a downward curve from costa to vein 6, minutely dentate to vein 4,

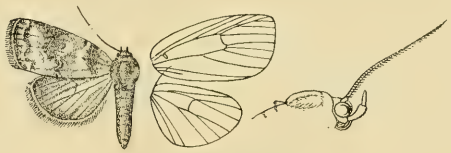


Fig. 80.—*Characoma ruficirra*, ♂. ⅔.

then strongly incurved and excurved to inner margin, a rufous shade beyond it from costa to vein 6; subterminal line indistinct, dark, minutely waved, excurved at vein 7 and middle; a rufous shade at apex; a terminal series of black points; cilia brownish. Hind wing brownish grey, the veins and terminal area slightly darker.

Hab. Japan, Yokohama (*Pryer*), 2 ♂ type; Sikhim (*Möller*), 1 ♀; Assam, (*Badgley*), 2 ♀, Khásis, 2 ♀. *Exp.* 22–24 millim.

6498. **Characoma glaphyra.** (Plate CLXXX. fig. 16.)

Acontia glaphyra, Holl. Psyche, vii. p. 128 (1894).

♀. Head and thorax brownish ochreous; palpi with the 2nd joint blackish at sides except at tips; patagia at base and prothorax blackish; abdomen greyish dorsally tinged with fuscous. Fore wing grey-white thickly irrorated with brown; some black at base; antemedial line diffused, black, oblique from costa to vein 1, connected by a diffused black patch in submedian interspace with the postmedial line, which is minutely waved, excurved from below costa to vein 4, then incurved; an oblique black patch from apex to vein 4 just beyond the postmedial line, diffused on outer side; traces of a minutely waved subterminal line; a terminal series of black points; cilia dark towards apex. Hind wing pale suffused with brown; the underside whiter except on costal area.

Hab. Sierra Leone (*Clements*), 1 ♀, Gaboon, Kangwé. *Exp.* 18 millim.

6499. **Characoma polia.** (Plate CLXXX. fig. 17.)

Hypothripa polia, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 452 (1897).

♂. Head and thorax grey-white mixed with pale brown and some black; palpi with black spots on 1st and 2nd joints, the tips black; antennæ black; fore tibiæ and tarsi banded with black; abdomen grey suffused with fuscous, the ventral surface whitish. Fore wing grey-white irrorated with fuscous; antemedial line double, oblique, sinuous, black and prominent to submedian fold,

then hardly traceable; medial line black, erect to subcostal nervure, then oblique; a slight blackish discoidal spot; postmedial line black defined on outer side by white, oblique and slightly sinuous to vein 6 where it is acutely angled, angled inwards at discal fold, excurved and slightly waved to vein 3, then incurved and again excurved at vein 1, some fuscous suffusion beyond it on costa and in submedian interspace; subterminal line blackish, excurved below vein 7 and incurved at discal fold, then minutely dentate; a terminal series of black points; cilia whitish slightly intersected with brownish. Hind wing white tinged with brown especially on the veins and terminal area from apex to vein 2; a fine whitish line at base of cilia; the underside white, the costal area and terminal area to vein 2 suffused with brown.

Hab. Assam, Khásis, 1 ♂ type. *Exp.* 24 millim.

6500. **Characoma miophora**, n. sp. (Plate CLXXX. fig. 18.)

♂. Head and thorax grey-white mixed with dark olive-green: abdomen brown, the basal crest grey-green; pectus, legs, and ventral surface of abdomen ochreous white, the fore legs irrorated with brown in front and the tarsi ringed with white. Fore wing whitish tinged with olive-green and thickly irrorated with fuscous; antemedial line blackish, sinuous; medial line blackish, oblique to median nervure and angled inwards at vein 1; postmedial line blackish slightly defined on outer side by whitish, oblique to vein 5, inwardly oblique and slightly sinuous below vein 4; subterminal line blackish defined on outer side by whitish, excurved below vein 7 and at middle; a fine black terminal line; cilia grey intersected with blackish. Hind wing white, the veins and terminal area suffused with fuscous brown; cilia brownish at base, white at tips; the underside white, the terminal area suffused with fuscous from apex to vein 2.

Ab. 1. Fore wing with white patch at tornus; hind wing wholly suffused with fuscous brown.—S. Leone.

Hab. Sierra Leone (*Clements*), 1 ♂; Transvaal, White R. (*Cooke*), 1 ♂ type. *Exp.* 20–22 millim.

6501. **Characoma cana.** (Plate CLXXX. fig. 19.)

Hypothripa cana, Hmpsn. Moths Ind. ii. p. 383 (1894).

♀. Head and thorax white tinged with pale brown; abdomen pale brown, white at base; palpi with some black on 2nd joint behind and base of 3rd joint; pectus, legs, and ventral surface of abdomen white, the fore legs with some fuscous in front. Fore wing grey-white irrorated with pale brown; traces of sinuous dark antemedial and medial lines; postmedial line indistinct and obliquely curved from costa to vein 7, then represented by slight black points; a subterminal series of faint minute dark streaks on the veins; a terminal series of black points. Hind wing semihyaline white

with a faint brownish tinge, the veins of terminal half brown, the termen with slight brown suffusion; cilia white with a brownish line through them from apex to vein 2.

Hab. Burma, E. Pegu (*Doherty*), type † ♀ in Coll. Rothschild. *Exp.* 32 millim.

6502. **Characoma deleta.** (Plate CLXXX. fig. 20.)

Pardasena deleta, Hmpsn. A. M. N. H. (7) xvi. p. 541 (1905).

♂. Head and thorax pale ochreous; abdomen whitish tinged with ochreous. Fore wing pale ochreous brown; very indistinct sinuous antemedial and medial lines; traces of a diffused postmedial line excurved from costa to vein 4, then oblique; traces of a subterminal series of dark points; the termen rather darker. Hind wing semihyaline white, the terminal area tinged with brown.

Hab. Peru, Callao (*J. J. Walker*), 1 ♂ type. *Exp.* 22 millim.

6503. **Characoma ferrigrisea.** (Plate CLXXX. fig. 21.)

Pardasena ferrigrisea, Hmpsn. A. M. N. H. (7) xvi. p. 541 (1905).

♂. Head, thorax, and abdomen grey tinged with pale iron-brown. Fore wing grey suffused with iron-brown; an indistinct subbasal line from costa to submedian fold, excurved below costa, then incurved; antemedial line brown defined by white on inner side, minutely waved, oblique from costa to submedian fold where it is obtusely angled; a slight discoidal point; postmedial line brown defined by white on outer side, minutely waved, oblique from costa to vein 6, excurved to vein 4, then incurved; subterminal line indistinct, diffused, dark, excurved at vein 7 and middle; a terminal series of minute points. Hind wing grey suffused with pale brown, the basal area slightly paler; cilia grey; the underside paler.

Hab. Gambia, Bathurst (*Carter*), 1 ♂ type. *Exp.* 18 millim.

Genus **DILOPHOTHRIPA.**

Type.

Dilophothripa, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 452 (1896). *chrysorrhœa*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to above vertex of head, broadly fringed with hair behind, moderately in front, the 3rd joint moderate; frons smooth, with tuft of hair and tuft above it between antennæ; eyes large, round, antennæ of male almost simple; thorax clothed almost entirely with scales, the metathorax with depressed crest; tibiæ slightly fringed with hair; abdomen with small dorsal crest at base only. Fore wing long and narrow, the costa arched near base, the apex rounded, the termen evenly curved and not crenulate; vein 3 from before angle of cell; 4, 5 from angle; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3 and 5 stalked, 4 absent; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

Sect. I. Abdomen of male with large rather bifid anal tuft; hind wing with a fold below costa from near base to well beyond middle containing a large tuft of ochreous and fuscous hair, the costal and subcostal nervures bent downwards, the termen excised towards tornus which is somewhat lobed and clothed with thick woolly hair above.

6504. Dilophothripa chrysorrhœa.

Dilophothripa chrysorrhœa, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 452 (1897).

Head and thorax fuscous brown mixed with greyish; abdomen pale brown with the anal tuft pinkish; pectus, legs, and ventral surface of abdomen white, the fore tibiæ and tarsi brown, the latter ringed with white. Fore wing fuscous brown mixed with some grey; an indistinct dentate blackish subbasal line; antemedial line blackish slightly defined on outer side by whitish, oblique, minutely

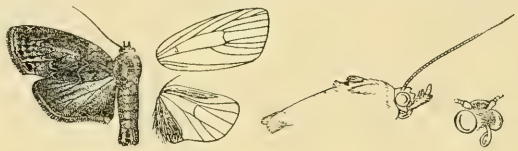


Fig. 81.—*Dilophothripa chrysorrhœa*, ♂. ¾.

dentate towards costa, excurved below the cell; black points in and below middle of cell and two discoidal points; postmedial line blackish defined on inner side by white, oblique to vein 6, then minutely dentate, oblique from vein 4 to vein 1 and bent outwards above inner margin; a minutely dentate whitish subterminal line defined on outer side by small blackish spots; a terminal series of black points. Hind wing brown, the hair at tornus of male blackish, the cilia white at tips; the underside grey.

Hab. Assam, Khásis, 2 ♂, 1 ♀ type. *Exp.* 24 millim.

Sect. II. Abdomen of male with large lateral tufts of hair towards extremity; hind wing with fold below terminal half of costa below vein 8 containing a tuft of whitish hair, the termen excised towards tornus which is slightly lobed and with large lobate tuft of scales.

6505. Dilophothripa lobata.

Dilophothripa lobata, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 654 (1907).

♂. Head and thorax grey-white mixed with dark brown; abdomen whitish tinged with brown; pectus, legs, and ventral surface of abdomen white, the fore tibiæ and tarsi tinged with brown and ringed with whitish. Fore wing white suffused with dark brown, the costal half of antemedial area whiter, with a wedge-shaped dark brown patch beyond it extending to beyond middle; two diffused dark brown oblique subbasal lines from costa to vein 1; antemedial line slight, brown defined on outer side by

white, minutely waved, oblique from costa to submedian fold; two black discoidal points; postmedial line whitish, oblique from costa

Fig. 82.—*Dilophothripa lobata*, ♂. ⅔.

to vein 6 and incurved below vein 4; subterminal line white, excurved below vein 7 and at middle; a punctiform black terminal line faintly defined on inner side by whitish. Hind wing brown, the costal area whitish; the underside with the inner area white.

Hab. Assam, Khásis, 1 ♂ type; Singapore (*Ridley*), 1 ♂. *Exp.* 20 millim.

Sect. III. Abdomen of male with large lateral anal tufts; hind wing with fold below costa to beyond middle containing a tuft of ochreous hair, the tornus normal.

A. Fore wing with dark wedge-shaped patch on costal area beyond the antemedial line defined before and below by whitish ..... *alopha.*

B. Fore wing without dark patch on costal area defined by whitish ..... *brachytorna.*

6506. Dilophothripa alopha. (Plate CLXXX. fig. 22.)

Dilophothripa alopha, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 654 (1907).

♂. Head and thorax whitish mixed with dark brown; abdomen white slightly tinged with brown; pectus, legs, and ventral surface of abdomen white, the fore and mid tibiæ and tarsi tinged with brown, the latter ringed with white. Fore wing white suffused with purplish fuscous; a fuscous brown patch at base before the oblique curved white subbasal line from costa to vein 1, a dark patch beyond the line on costa; antemedial line double filled in with white, oblique from costa to submedian fold, then incurved, a wedge-shaped patch of fuscous brown beyond it on costa extending to median nervure and to apex; medial black points below median nervure and in submedian fold; two black discoidal points; postmedial line white slightly defined on outer side by brown, minutely waved, oblique to vein 6 and incurved below 4; subterminal line white defined on each side by brown and with two white points at costa, excurved below vein 7 and at middle; a terminal series of black points. Hind wing white tinged with red-brown.

Hab. Burma, Tenasserim (*Doherty*), 1 ♂ type. *Exp.* 20 millim.

6507. Dilophothripa brachytorna.

Dilophothripa brachytorna, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 655 (1907).

Head, and thorax dark brown slightly mixed with grey; pectus, legs, and abdomen whitish suffused with brown, the lateral anal tufts purplish, tibiæ and tarsi browner, the fore tarsi ringed with white. Fore wing dark brown tinged with grey; subbasal line whitish, oblique, from costa to submedian fold; antemedial line fine, dark, defined on outer side by whitish, obliquely curved; obliquely placed medial black points below the cell and in submedian fold; two black discoidal points; postmedial line whitish, slightly bent outwards below costa, excurved and minutely waved to vein 2,

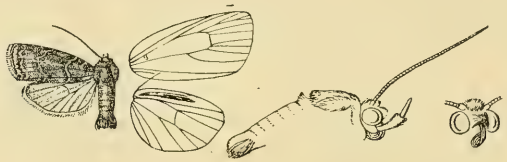


Fig. 83.—*Dilophothripa brachytorna*, ♂. ¾.

then incurved; subterminal line grey defined on each side by slight dark points and with two white points at costa, somewhat excurved below vein 7 and at middle; a terminal series of black points. Hind wing pale brown, the cilia whitish.

Hab. Bombay, Karwar (*T. R. Bell*), 8 ♂, 3 ♀ type; Borneo, Sarawak (*Wallace*), 1 ♂. *Exp.* 16–18 millim.

Sect. IV. Abdomen of male with large rather bifid anal tuft; hind wing normal.

6508. Dilophothripa olivia.

Dilophothripa olivia, Hmpsn. A. M. N. H. (7) xvi. p. 584 (1905).

♂. Head and thorax whitish mixed with pale olive; palpi at sides and antennæ blackish; tegulæ at tips and outer edge of patagia brown; abdomen whitish. Fore wing pale olive; a black

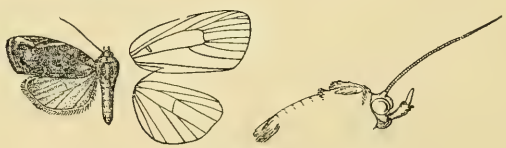


Fig. 84.—*Dilophothripa olivia*, ♂. ¾.

patch on costa near base and some fiery red marks on inner area before the indistinct oblique waved antemedial line; two minute black points in middle of cell and two on discocellulars, and two more

prominent obliquely placed points below middle of cell; postmedial line fuscous defined by white on inner side, very minutely waved, very oblique from costa to vein 6, then inwardly oblique, a fuscous patch beyond it on costa with white streak below it curving up to apex; some white points on costa towards apex; a fuscous mark beyond the postmedial line in submedian fold; subterminal line white with fuscous marks on its inner side, excurved below costa and at middle; a terminal series of black points. Hind wing white slightly tinged with brown.

Hab. Borneo, Pulo Laut (*Doherty*), 1 ♂ type. *Exp.* 13 millim.

Genus **SYMITHA**.

	Type.
Symitha, Wlk. xxxv. 1731 (1863)	*nolalella*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and slightly fringed with scales in front, the 3rd long and typically smoothly scaled; frons smooth, with tuft of hair above; eyes large, round; antennæ of male minutely ciliated; prothorax without crest, metathorax with large spreading crest; fore tibiæ fringed on both sides with long hair; mid and hind tibiæ smoothly scaled; abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen evenly curved and not crenulate; vein 3 from well before angle of cell; 5 from just above angle; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3 and 5 from angle of cell, 4 absent, coincident with 3; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

Sect. I. Palpi with the 3rd joint fringed with hair above towards base.

6509. **Symitha indicatana.**

Tortrix indicatana, Wlk. xxviii. 333 (1863); Hmpsn. Ill. Het. B. M. ix. p. 107, pl. 163. f. 13; id. Moths Ind. ii. p. 387.

Head and thorax white mixed with some dark brown, the tegulæ almost wholly dark brown, the patagia with two brown bars towards tips; the fore legs dark brown on inner side; abdomen whitish tinged with brown dorsally, the basal crest black at tip. Fore

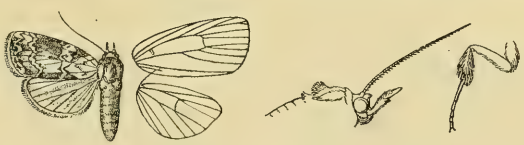


Fig. 85.—*Symitha indicatana*, ♂. ⅔.

wing white irrorated with brown; a brown spot at base of cell; antemedial line double, brown filled in with white, oblique from costa to vein 1 and bent inwards to inner margin, an oblique brown band beyond it from costa to submedian fold with dark spots beyond it below costa and in cell; medial line double, waved, with a black mark

on it at vein 1, a wedge-shaped brown patch beyond it on costal area and patch of brownish suffusion on inner area; a small black spot on a white mark at end of cell; postmedial line double, minutely waved, oblique to vein 6 where it is angled, then inwardly oblique to submedian fold and bent outwards to inner margin; an oblique white mark from apical part of costa to the angle of postmedial line; subterminal line white defined on inner side by somewhat dentate blackish marks and a larger spot in submedian interspace, bent inwards at discal fold, an indistinct maculate band beyond it; a terminal series of black striæ. Hind wing suffused with fuscous.

Hab. Assam, Nágas; Ceylon, Dickoya (*Green*), 1 ♂, 2 ♀; hab. ign., 1 ♂ type. *Exp.* 22 millim.

Sec II. Palpi with the 3rd joint smoothly scaled.

6510. Symitha nolalella.

Symitha nolalella, Wlk. xxxv. 1731 (1866).

Head and thorax white and dark brown mixed; palpi with the 2nd joint brown at sides; abdomen white dorsally tinged with brown. Fore wing white irrorated with brown, a patch of brown suffusion on medial costal area extending on costa to beyond postmedial line; subbasal line double, blackish filled in with white, oblique, waved, from costa to vein 1, slight black streaks before it below costa and cell; antemedial line double, filled in with white, oblique, waved, angled outwards above inner margin, two slight black streaks beyond it above vein 1; a black

Fig. 86.—*Symitha nolalella*, ♂. ¾.

point in cell before the white discoidal bar which is defined on outer side by brown; postmedial line double filled in with white, waved, oblique to vein 6 where it is slightly angled outwards, then inwardly oblique to submedian fold and bent outwards to inner margin; subterminal line white, dentate and defined on inner side by slight dentate black marks and a spot in submedian interspace, a slight brown shade beyond it; a terminal series of black points. Hind wing white suffused with brown except towards base.

Hab. Bengal, Calcutta (*Grote*), 1 ♂; Bombay, N. Kanara, Karwar (*Bell*), 1 ♂, 1 ♀; Ceylon, 1 ♀; Java (*Horsfield*), 1 ♂ type. *Exp.* 18–20 millim.

Genus **PARDASENA.**

Type.

Pardasena, Wlk. xxxv. 1730 (1866) ..... *præselioides.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and slenderly scaled, the 3rd long; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3 and 5 from angle of cell, 4 absent, coincident with 3, rarely given off just before termen; 6, 7 from upper augle; 8 anastomosing with the cell near base only.

Sect. I. Fore wing of male on underside with patch of black androconia in and below cell; hind wing with black androconia on upper and under sides of costal area to beyond middle, the tornus contorted and with tufts of black hair in the cilia on underside.

6511. **Pardasena virgulana.**

Sarrothripa virgulana, Mab. C. R. Soc. Ent. Belg. xxiii. p. xvii (1880); Kirby, Cat. Lep. Het. p. 369.
Giaura nigriscripta, Hmpsn. A. M. N. H. (7) xvi. p. 542 (1905).

Head and thorax white mixed with fuscous; abdomen white dorsally tinged with brown. Fore wing grey-white irrorated and suffused with fuscous brown; a black streak on subcostal nervure to the obliquely curved black subbasal line from costa to vein 1; antemedial line almost medial, black defined on inner side by white, excurved at subcostal nervure and below the cell, angled inwards at vein 1, two slight black streaks or a black fascia

Fig. 87.—*Pardasena virgulana*, ♂. ¾.

between it and postmedial line above submedian fold; postmedial line black slightly defined on outer side by white, oblique from costa to vein 6, slightly angled inwards at discal fold, excurved to vein 4, then incurved and again slightly excurved at vein 1, the veins beyond it slightly streaked with black; subterminal line black, punctiform, excurved below vein 7 and at middle. Hind wing white, the veins towards termen and the termen from apex to vein 2 tinged with brown in female.

Hab. Br. E. Africa, Eb Urru (*Betton*), 1 ♂, 1 ♀, Kikuyu (*Crawshay*), 1 ♀ type *nigriscripta*, Sabaki Valley (*Gregory*), 2 ♀; Transvaal (*Cholmley*), 1 ♀; Natal, Durban (*Leigh*), 2 ♀; Madagascar, type † in Coll. Mabille. *Exp.* 18–24 millim.

Sect. II. Fore and hind wings of male normal.

A. Fore wing with the lines continuous.
  a. Fore wing pale olive-green ..... *verna*.
  b. Fore wing greenish grey suffused with brown ..... *miochroa*.
  c. Fore wing not tinged with green.
    a^1. Fore wing with the postmedial line oblique from costa to vein 4 ..... *minorella*.
    b^1. Fore wing with the postmedial line bent outwards below costa and incurved below vein 4.
      a^2. Fore wing with the antemedial line excurved below costa ..... *præselioides*.
      b^2. Fore wing with the antemedial line not excurved below costa ..... *lativia*.
B. Fore wing with the lines reduced to series of black points.
  a. Fore wing with the subterminal line present ..... *punctata*.
  b. Fore wing with the subterminal line absent.
    a^1. Thorax with black spots ..... *atripuncta*.
    b^1. Thorax without black spots ..... *melanosticta*.

6512. Pardasena verna. (Plate CLXXX. fig. 23.)

Hypothripa verna, Hmpsn. J. Bomb. Nat. Hist. Soc. xiv. p. 211 (1902).

♂. Head and tegulæ grey-green; palpi and antennæ reddish mixed with black-brown; thorax pale reddish mixed with black-brown; abdomen pale grey-brown, the dorsal crest whitish; pectus and ventral surface of abdomen ochreous white. Fore wing pale olive-green irrorated with white especially on costal half before the postmedial line and on apical area and with some dark scales on the margins; a round patch on basal area from costa to submedian fold with ochreous centre shading into brown at edges; a white antemedial line with dark point beyond it at costa, oblique to subcostal nervure, then slightly sinuous and again oblique towards inner margin; postmedial line white with small black spots before and beyond it at costa and some minute points before it at middle, oblique to vein 6, angled inwards at discal and submedian folds and minutely waved between those points; subterminal line represented by a black spot on costa, interrupted below costa, then black defined on outer side by white, slightly angled inwards at discal and submedian folds; a terminal series of black points; cilia brownish. Hind wing whitish suffused with brown, a fine pale line at base of cilia; the underside white, the costal area tinged with ochreous towards base, a faint diffused postmedial shade from costa to vein 2 and terminal shade.

Hab. Sikhim, 1800′ (*Dudgeon*), 1 ♂ type; Burma, Karen Hills, Thandsung (*Doherty*), 1 ♂. *Exp.* 22 millim.

6513. Pardasena miochroa. (Plate CLXXX. fig. 24.)

Hypothripa miochroa, Hmpsn. A. M. N. H. (7) xvi. p. 540 (1905).

♀. Head and thorax greenish grey mostly suffused with reddish brown; abdomen greyish fuscous. Fore wing greenish grey suffused and irrorated with reddish brown especially on basal costal

area and disk; a double minutely waved subbasal line from costa to submedian fold; a double minutely waved blackish antemedial line from costa to vein 1, then angled outwards above inner margin; a whitish discoidal spot with two black points on it; postmedial line blackish defined by grey on outer side, bent outwards below costa, then minutely dentate, angled inwards at vein 2; subterminal line grey defined by fuscous before and beyond it, slightly excurved at vein 7 and middle; a terminal series of minute black points. Hind wing uniform fuscous brown; the underside paler except costal area and terminal area to vein 2.

Hab. Colombia, St. Marta (*Bouchard*), 1 ♀ type. *Exp.* 24 millim.

6514. Pardasena minorella. (Plate CLXXX. fig. 25.)

Pardasena minorella, Wlk. xxxv. 1730 (1866).

♀. Head and thorax white slightly tinged with brown; pectus, legs, and abdomen white. Fore wing white tinged with pale brown; traces of a subbasal dark striga from costa; antemedial line almost medial, faint, oblique, sinuous; postmedial line rather punctiform and oblique, with a faint dark shade beyond it from costa to vein 4, then incurved and hardly traceable; subterminal line dark, punctiform, angled inwards at discal and submedian folds; a slight dark shade before termen below apex; a terminal series of blackish points. Hind wing white, the terminal area tinged with pale brown from apex to vein 2.

Hab. Sierra Leone (*Morgan*), 1 ♀ type in bad condition. *Exp.* 24 millim.

6515. Pardasena rœselioides.

Acontia rœselioides, Wlk. xv. 1760 (1858).
Pardasena acronyctella, Wlk. xxxv. 1730 (1866).
Blenina brunnescens, Hmpsn. A. M. N. H. (7) xvi. p. 548 (1905).

Head and thorax grey-white mixed with fuscous; abdomen grey-white tinged with brown; pectus, legs, and ventral surface of abdomen white, the fore legs irrorated with brown in front and the

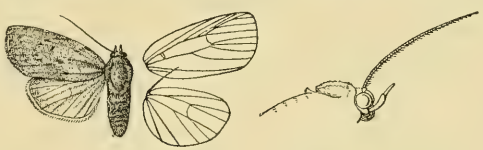


Fig. 88.—*Pardasena rœselioides*, ♂. ½.

tarsi ringed with white. Fore wing grey-white thickly irrorated with fuscous; subbasal line blackish, curved, from costa to submedian fold; antemedial line blackish, obliquely excurved and punctiform from below costa to inner margin; a blackish discoidal

point and some blackish irroration in, beyond, and below end of cell; postmedial line black, bent outwards below costa, then punctiform, incurved below vein 4; submedian line rather diffused, dentate, angled inwards at discal and submedian folds; a terminal series of small black spots. Hind wing white tinged with brown especially on the veins and terminal area.

Hab. Sierra Leone (*Morgan*, *Foxcroft*), 3 ♀ type and type *acronyctella*; Br. E. Africa, Takaunga (*Thomas*), 1 ♀; Br. C. Africa, L. Nyassa (*de Jersey*), 1 ♂ type *brunnescens*. *Exp.* 22–30 millim.

6516. **Pardasena lativia**, n. sp. (Plate CXCI. fig. 26.)

♀. Head and thorax grey mixed with brown; palpi blackish at sides; tarsi blackish ringed with white; abdomen pale reddish brown, the ventral surface whitish. Fore wing grey-white irrorated with brown, the antemedial area whiter; a black point in cell near base; subbasal line black, minutely dentate and inwardly oblique; antemedial line slight, double, black filled in with white, oblique, sinuous; postmedial line very indistinct, double, dark filled in with whitish, oblique from costa to vein 6, then sinuous; subterminal line blackish, excurved below costa and at middle; a punctiform black terminal line. Hind wing whitish suffused with brown; a dark terminal line.

Hab. Gold Coast, Bibianaha (*Spurrell*), 3 ♀ type. *Exp.* 24–26 millim.

6517. **Pardasena punctata.** (Plate CLXXX. fig. 26.)

Pardasena punctata, Hmpsn. Ann. S. Afr. Mus. ii. p. 444 (1902).

♀. Head and thorax brownish white; palpi with some black on 2nd and 3rd joints above; back of head with pair of black spots; tegulæ with slight dorsal blackish spot, patagia with slight blackish spots, metathorax with slight paired tufts of black hair; abdomen white suffused with pale brown, the dorsal crest black at tip. Fore wing white faintly tinged with pale brown and irrorated with fuscous; a black point at base of costa; a subbasal black striga from costa and point in cell; antemedial line represented by a small black spot on vein 1 and a few scales at middle of cell, on vein 2 and inner margin; a slight discoidal point; a postmedial series of small black spots, very obliquely excurved from costa to vein 4, then oblique, some black irroration beyond it on costa; a rather diffused black subterminal line, excurved below vein 7 and middle; a terminal series of minute black points. Hind wing brownish white with diffused fuscous on veins 6 to 2 and on termen from apex to vein 2.

Hab. Natal, Durban (*Leigh*), 1 ♀ type. *Exp.* 20 millim.

6518. **Pardasena atripuncta**, n. sp. (Plate CLXXX. fig. 27.)

♂. Head, thorax, and abdomen whitish suffused with grey, the palpi and frons yellowish white; antennæ blackish; back of head, tegulæ, base of patagia, and metathorax with pairs of black spots; abdomen with the small basal crest black at tips, ventral surface white. Fore wing pale grey clouded with pale brown, the medial area paler except at costa; a black point at base of costa and subbasal points below costa and cell; an antemedial series of four black points; medial black points below costa and in submedian fold; a discoidal point and postmedial point above inner margin; a terminal series of rather triangular black points. Hind wing grey suffused with brown; the underside grey-white.

Hab. Natal, Durban (*Leigh*), 1 ♂ type. *Exp.* 20 millim.

6519. **Pardasena melanosticta**, n. sp. (Plate CLXXX. fig. 28.)

♂. Head, thorax, and abdomen pale brownish grey, antennæ black; metathorax with minute paired tufts of black scales; abdomen with the dorsal crest black at tips. Fore wing pale brownish grey; small subbasal black spots below costa and cell; an antemedial series of five small black spots, very oblique from costa to submedian fold where it is angled outwards to near postmedial line; a postmedial series of slight black points and small spots at discal fold and vein 1, oblique from costa to discal fold. Hind wing whitish suffused with brown; the underside with an ochreous tinge on costal area to beyond middle.

Hab. Br. E. Africa, Teita (*Jackson*), 1 ♂ type. *Exp.* 16 millim.

Genus **APOTHRIPA**.

	Type.
Apothripa, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 653 (1907) ...	*iphida*.

Proboscis fully developed; palpi obliquely upturned, slender, the 2nd joint reaching to middle of frons, the 3rd moderate; frons smooth with ridge of scales above between antennæ; eyes large, round; antennæ of male minutely ciliated; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled; abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3, 4 stalked; 5 from just above angle of cell; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 strongly stalked; 5 fully developed from angle of cell; 6, 7 from upper angle; 8 anastomosing with cell to middle.

A. Fore wing with bifid white spot at middle of terminal area.
  a. Fore wing with triangular white patch on middle of inner margin ..... *albonotata*.
  b. Fore wing with white fascia on middle of inner margin ... *binotata*.
B. Fore wing without bifid white spot at middle of terminal area *iphida*.

6520. Apothripa albonotata. (Plate CLXXX. fig. 29.)

Clettharra albonotata, Hmpsn. Moths Ind. ii. p. 384 (1894).

Head and thorax white mixed with brown and some fuscous, the metathorax pure white; abdomen fuscous brown, white at base; pectus, legs, and ventral surface of abdomen white, the fore tarsi and base of mid tarsi blackish. Fore wing grey suffused with pale olive-brown, the veins beyond the cell streaked with black; a tuft of black scales below base of costa; subbasal line black, curved, slightly defined on outer side by white; antemedial line double, white, the outer line slightly excurved at subcostal nervure, some pink between and beyond the lines in and below the cell, and a minute tuft of yellow scales in cell; reniform small, with yellow and rufous centre defined by black; a triangular white patch at middle of inner margin, its apex extending to vein 2; postmedial line fine, dark, slightly defined on outer side by white, oblique from costa to vein 6, then nearly erect, a conical black patch beyond it on costa defined by white extending to apex and with two black points on the costa; the terminal part of inner area more or less prominently chestnut-red; subterminal line slight, white, somewhat excurved below vein 7 and at middle, a small bifid white spot beyond it between veins 4, 3; a terminal series of slight dark points; cilia grey-brown towards apex, white below middle and chestnut-red towards tornus. Hind wing whitish, the veins and terminal area suffused with brown; cilia brownish at base, white at tips; the underside white, the costal and terminal areas suffused with brown.

Hab. Sikhim (*Pilcher*, *Möller*), 2 ♂, 3 ♀; Burma, Tenasserim (*Doherty*), type † ♂ in Coll. Druce. *Exp.* 22 millim.

6521. Apothripa binotata, n. sp. (Plate CLXXX. fig. 30.)

♂. Head and thorax white mixed with purplish red; palpi brown; pectus and legs white, the fore and mid tibiæ and tarsi brown ringed with white; abdomen white dorsally suffused with rufous. Fore wing grey-white irrorated with fuscous, the inner half suffused with purplish red, a black-brown streak along median nervure and vein 4 from base to termen, a white fascia on medial part of inner margin; a small tuft of black scales at base of cell; a curved blackish subbasal line from costa to vein 1; antemedial line almost obsolete on costal half, whitish with a few black scales on its outer edge and excurved below costa, on inner half deep red and oblique; postmedial line very indistinct, whitish defined on inner side by some dark scales at middle and towards inner margin, oblique to vein 6, incurved below vein 4 to below end of cell and again excurved above inner margin, a conical patch of blackish suffusion beyond it on costal area with two white points on the costa; subterminal line very indistinct, whitish, minutely waved, with two small quadrate white spots beyond it above and below vein 3; a fine dark terminal line; cilia grey and brown with a white patch at the lower white spot.

Hind wing whitish, the veins and terminal half suffused with brown; cilia ochreous white; the underside white, the costal and terminal areas tinged with brown.

Hab. Assam, Khàsis, 1 ♂ type. *Exp.* 22 millim.

6522. Apothripa iphida.

Clettharra iphida, Swinh. A. M. N. H. (7) vii. p. 490 (1901).

♂. Head and thorax white, the palpi, vertex of head, and tegulæ tinged with red-brown, the patagia red with some blackish scales on upper edge; abdomen ochreous white. Fore wing purplish red-brown with ill-defined whitish fasciæ on costal area and inner margin and some pinkish above vein 1 to postmedial line; a subbasal white striga from costa and some fuscous scales on inner margin; antemedial line indistinct, dark defined on inner side by

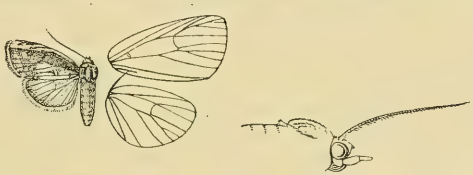


Fig. 89.—*Apothripa iphida*, ♂. ½.

whitish towards inner margin, oblique to middle of cell, then erect and slightly incurved at vein 1; an indistinct blackish discoidal striga; postmedial line indistinct, dark, defined by whitish towards costa and inner margin, very oblique below costa, excurved to vein 3 and strongly angled inwards above vein 1; some small blackish spots on costa towards apex; traces of a subterminal line defined by a few whitish scales, oblique below costa; cilia intersected with whitish. Hind wing white, the terminal half slightly tinged with brown except towards tornus.

Hab. Assam, Jaintia Hills, 1 ♂ type. *Exp.* 24 millim.

Genus NANAGUNA.

	Type.
Nanaguna, Wlk. xxvii. 85 (1863)	*breviuscula.*
Clettharra, Wlk. xxvii. 101 (1863)	*breviuscula.*
Dumatha, Wlk. Journ. Linn. Soc., Zool. vii. p. 195 (1864)	*herbida.*
Lagistana, Wlk. xxxiii. 1093 (1865)	*breviuscula.*
Tamusida, Wlk. xxxv. 1732 (1866)	*vittalis.*
Thrypticodes, Turner, Tr. R. Soc. S. Austr. xxiii. p. 17 (1899)	*breviuscula.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to middle of frons and slenderly scaled, the 3rd long and slightly dilated at extremity; frons smooth with tuft of hair above between antennæ; eyes large, round; antennæ of male laminate and almost simple; thorax clothed almost entirely with scales, the tegulæ produced to a slight dorsal ridge, the metathorax with depressed crest; fore and mid tibiæ moderately fringed with hair, the hind tibiæ smoothly scaled; abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen evenly curved and not crenulate: veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8, 9, 10 stalked;

11 from cell. Hind wing with veins 3, 4 stalked; 5 fully developed from lower angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

Sect. I. (*Nanaguna.*) Antennæ of male with ridge of hair on shaft above towards base; the fore tibiæ and tarsal joints tufted with hair; abdomen with lateral tufts of long hair from near base and extremity; hind wing with the costa strongly lobed and fringed with hair, a large tuft of hair below the costa on upperside and a tuft of long hair in upper part of cell.

6523. Nanaguna breviuscula.

Nanaguna breviuscula, Wlk. xxvii. 85 (1863).
Clettharra valida, Wlk. xxvii. 101 (1863); Hmpsn. Ill. Het. B.M. ix. p. 108, pl. 163. f. 12; id. Moths Ind. ii. p. 384.
Bagistana rudis, Wlk. xxxiii. 1093 (1865).
Thrypticodes xyloglypta, Lucas, P. Linn. Soc. N.S.W. (2) iv. p. 1073 (1890); Kirby, Cat. Het. p. 916.
Symitha nigridisca, Hmpsn. Ill. Het. B.M. viii. p. 87, pl. 146. f. 11 (1891).
Clettharra floccifera, Hmpsn. Moths Ind. ii. p. 386 (1894).

♂. Head and thorax whitish mixed with pale brown; abdomen white dorsally tinged with ochreous and with grey at extremity, the anal segment deep black ventrally. Fore wing whitish tinged with ochreous and irrorated with red-brown, a dark brown patch on inner area from postmedial line to termen; an oblique blackish

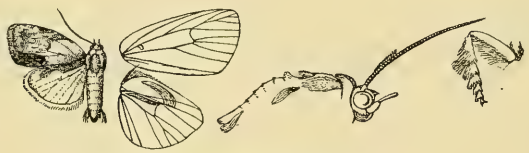


Fig. 90.—*Nanaguna breviuscula*, ♂. ½.

subbasal band from costa to submedian fold defined on outer side by whitish; antemedial line whitish defined on outer side by blackish, angled outwards below costa and at submedian fold; a faint blackish discoidal point; postmedial line whitish defined on inner side by minute black streaks on veins 6 to 2, very oblique from costa to vein 6, excurved to vein 4, then incurved; some black points on costa towards apex and faint traces of a minutely dentate whitish subterminal line; the terminal area with a faint greenish tinge except towards tornus; cilia red and dark brown towards tornus. Hind wing white, the termen tinged with brown except towards tornus, the tuft of hair below costa purplish red, the tuft in cell pale fuscous.

♀. Abdomen with the anal segment not black below.

Ab. 1. Fore wing more variegated with white and brown, the inner medial area white irrorated with black.

Ab. 2. Fore wing more uniform ochreous suffused with brown, and without the dark patch on terminal part of inner area.

Ab. 3. Fore wing with dark streaks in discal fold and above vein 2.

Ab. 4. Fore wing with prominent black discoidal spot.

Ab. 5. Fore wing with black patch on middle of costa.

Ab. 6 (*nigridisca*). Fore wing with black patch except on inner area from near base to postmedial line and thence in discal fold to termen.

Ab. 7. Fore wing wholly suffused with black except inner area.

Ab. 8. Fore wing with broad brown fascia on inner margin from base to the terminal patch.

Hab. Punjab, Kangra (*Hocking*), 1 ♂; Sikhim (*Dudgeon, Pilcher, Möller*), 6 ♂, 4 ♀; Bengal, Calcutta, 2 ♂, 1 ♀; Madras, Nilgiris (*Hampson*), 1 ♀ type *nigridisca*; Ceylon, Puttalam (*Pole*), 2 ♂, 1 ♀, Pundaloya (*Green*), 1 ♀; Borneo, Sarawak (*Wallace*), 1 ♂, 1 ♀ type and type *valida*; Dutch N. Guinea, Fak-fak (*Pratt*), 1 ♂; Louisiades, St. Aignan (*Meek*), 1 ♀; Queensland, Brisbane (*Turner*), 1 ♂, 2 ♀; N. S. Wales (*Raynor*), 1 ♂. *Exp.* 22–26 millim. Type † *rudis* in Mus. Oxon., type † *floccifera* in Coll. Rothschild.

Sect. II. Antennæ, fore legs, and abdomen of male normal.

A. Hind wing of male with the costa fringed with long hair to beyond middle.

6524. Nanaguna brunnea.

Nanaguna brunnea, Hmpsn. A. M. N. H. (7) xvi. p. 583 (1905).

♂. Head and thorax pale reddish brown more or less tinged with fuscous; abdomen pale reddish brown. Fore wing pale reddish brown slightly irrorated with black, the inner area to postmedial line and sometimes the inner half of terminal area whitish; the costal area near base and at middle, the cell and area just below

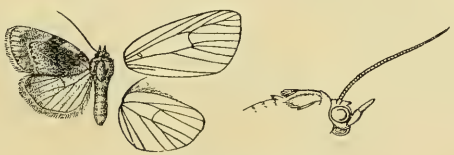


Fig. 91.—*Nanaguna brunnea*, ♂. ½.

it sometimes suffused with black; subbasal line represented by an inwardly oblique striga from costa and a very oblique streak from cell to antemedial line at vein 1, obscured in the black-suffused specimens; antemedial line almost medial, strongly angled outwards on subcostal nervure and in submedian fold and inwards in cell and on vein 1; traces of a discoidal annulus; postmedial line with series of black points on it and defined by whitish on outer side, very oblique from costa to vein 6, then inwardly oblique and incurved below vein 2 where there is some brownish or fuscous beyond it; some slight fuscous and whitish points on costa towards apex;

traces of a waved grey subterminal line with two obliquely placed fuscous points beyond it at vein 2 and sometimes a point on it in submedian fold; a terminal series of black points; cilia ochreous with series of brownish or fuscous spots. Hind wing whitish uniformly suffused with pale reddish brown the underside whitish, the costal area tinged with brown.

Hab. Assam, Khásis, 1 ♂ type; Pulo Laut (*Doherty*), 1 ♂. *Exp.* 26 millim.

B. (*Tamusida.*) Hind wing of male normal.
  a. Fore wing with the postmedial line strongly produced at vein 6.
    a^1. Fore wing with whitish fascia from costa near base to termen below apex.
      a^2. Fore wing with the postmedial line oblique below vein 6 ..... *albisecta.*
      b^2. Fore wing with the postmedial line incurved below vein 4 ..... *vittalis.*
    b^1. Fore wing without whitish fascia from costa near base to termen.
      a^2. Fore wing with blackish subbasal patch on costa ... *basalis.*
      b^2. Fore wing without blackish subbasal patch on costa *clopœa.*
  b. Fore wing with the postmedial line not produced at vein 6.
    a^1. Fore wing not suffused with olive-green.
      a^2. Fore wing without rufous patch on basal costal area *variegata.*
      b^2. Fore wing with rufous patch on basal costal area.
        a^3. Fore wing with the postmedial and subterminal lines dentate ..... *erastioides.*
        b^3. Fore wing with the postmedial and subterminal lines not dentate..... *florida.*
    b^1. Fore wing suffused with olive-green ..... *herbida.*

6525. Nanaguna albisecta. (Plate CLXXX. fig. 31.)

Nanaguna albisecta, Hmpsn. A. M. N. H. (7) xvi. p. 583 (1905).

♀. Head and thorax whitish slightly tinged with brown; tegulæ at tips, slight marks on patagia, and a patch on mesothorax black; fore tibiæ and tarsi banded with fuscous. Fore wing pale olive-grey slightly irrorated with black; some rufous suffusion below the cell near base and below middle of terminal area; a diffused white fascia from costa near base through the cell and thence to apex, defined below by a black streak ending in a black spot at lower angle of cell; a medial black line, oblique and punctiform from costa to the white fascia, waved below the cell; a rather punctiform black postmedial line defined by whitish on outer side, very oblique from costa to vein 6, then inwardly oblique, some blackish points beyond it on costa and slight streaks from vein 6 to submedian fold; a small wedge-shaped white spot on middle of termen; a terminal series of black points; cilia pale with some dark spots towards apex and a black patch above tornus. Hind wing whitish tinged with brown especially on the veins and terminal area.

Hab. Assam, Khásis; Ceylon, Kandy (*Machwood*), 1 ♀; Puttalam (*Pole*), 1 ♀ type; Sambawa (*Doherty*), 1 ♀. *Exp.* 20 millim.

6526. Nanaguna vittalis. (Plate CLXXX. fig. 32.)

Tamusida vittalis, Wlk. xxxv. 1733 (1866).

♀. Head and thorax white mixed with red-brown; pectus white; abdomen white dorsally suffused with red-brown. Fore wing white, the costal area obliquely suffused with pale olive from before middle to termen at vein 6, defined below by a white fascia, then suffused with red-brown and purplish red to vein 1, the inner margin whitish with a quadrate black-brown patch at middle; a very oblique blackish striga from costa near base; blackish streaks along median nervure and vein 4 to termen and in base of submedian fold; a very indistinct whitish antemedial line defined on each side by some slight dark points, oblique from costa to subcostal nervure, incurved in cell and at vein 1; postmedial line very indistinct, whitish, very oblique from middle of costa to vein 6 and incurved below vein 4; traces of a minutely dentate whitish subterminal line faintly defined on inner side by brown, excurved below costa, a white spot beyond it between veins 4, 3; some dark points on costa towards apex; cilia red-brown at discal and submedian folds and with slight dark line through them. Hind wing white, the veins and terminal area suffused with purple-brown; cilia white, brownish at base; the underside white, the costal and terminal areas tinged with brown.

Hab. Borneo, Sarawak (*Wallace*), 1 ♀ type. *Exp.* 28 millim.

6527. Nanaguna basalis.

Clettharra basalis, Moore, Lep. Ceyl. iii. p. 105, pl. 158. f. 7 (1885); Hmpsn. Moths Ind. ii. p. 384.

♂. Head and thorax whitish suffused with brown; fore and mid tarsi dark brown; abdomen whitish dorsally suffused with brown. Fore wing grey faintly tinged with olive and tinged with purplish on antemedial and medial areas; a blackish patch on subbasal costal area, defined at sides by black lines; medial line

Fig. 92.—*Nanaguna basalis*, ♂. $\frac{3}{2}$.

whitish defined on outer side by black scales, excurved below costa and in submedian fold; a slight black discoidal point and a blackish patch on inner medial area; postmedial line white defined on inner side by black points, very oblique from costa to vein 6, incurved

below vein 4, some blackish suffusion beyond it at middle of terminal area and a small triangular spot just before termen between veins 4, 3; some blackish points on terminal part of costa; traces of a waved whitish subterminal line; a terminal series of rather triangular black points; cilia chequered with blackish on apical half and at submedian fold. Hind wing whitish, the veins and terminal half suffused with brown; cilia brownish at base, white at tips.

Ab. 1. Fore wing with the antemedial and medial areas suffused with blackish.

Hab. Assam, Nágas (*Doherty*), 1 ♂; Ceylon, Colombo (*Mackwood*), 3 ♂ type, Kandy (*Mackwood*), 1 ♂. *Exp.* 22 millim.

6528. **Nanaguna clopæa.** (Plate CLXXXI. fig. 1.)

Dendrothripa clopæa, Turner, Pr. Linn. Soc. N. S. W. xxvii. p. 92 (1902).

♀. Head and thorax grey slightly mixed with brown; abdomen grey tinged with brown. Fore wing grey partly suffused with brown and irrorated with fuscous; traces of a curved subbasal line; the antemedial line black, oblique from costa to submedian fold, then bent inwards to vein 1 where it terminates; two rather indistinct waved medial lines; the postmedial line black, very obliquely downcurved from costa to vein 6, excurved to vein 4, then oblique to submedian fold where it is obtusely angled, and with traces of a line beyond it; a sinuous subterminal line, obsolescent on costal half, strong and diffused on inner half. Hind wing pale tinged with brown especially towards termen.

Hab. Queensland, Brisbane, 1 ♀, type † ♀ in Coll. Turner *Exp.* 22 millim.

6529. **Nanaguna variegata.** (Plate CLXXXI. fig. 2.)

Clettharra variegata, Hmpsn. Moths Ind. ii. p. 384 (1894).

Head and thorax grey, the vertex of head, tegulæ, and prothorax suffused with black; palpi with the 1st and 2nd joints red-brown; pectus and legs white, the fore and mid tibiæ and tarsi suffused with brown; abdomen brown with white segmental lines, the ventral surface white. Fore wing pale red-brown, the area just beyond the ante- and postmedial lines and on inner half before the postmedial line suffused with fuscous grey with some pale pinkish beyond it; a small tuft of grey scales below base of cell; antemedial line black, oblique, from costa to submedian fold, followed by fuscous grey suffusion, then an oblique whitish band; medial line indistinctly double, oblique, slightly angled inwards in cell; an oblique black striga on upper discocellular; postmedial line black slightly defined on outer side by whitish before the fuscous grey suffusion, minutely waved and slightly angled outwards at veins 4 and 1, the fuscous suffusion followed by a whitish band, then some pinkish and a black point on costa; a terminal series of

minute black points. Hind wing semihyaline white tinged with brown, the veins darker; the underside white, a faint brownish subterminal band from costa to vein 2.

Hab. Sikhim (*Dudgeon*, *Pilcher*, *Möller*), 1 ♂, 2 ♀; Bhután (*Dudgeon*), 1 ♂; Ceylon, Gampola (*Mackwood*), 1 ♂. *Exp.* 20–22 millim. Type † in Coll. Rothschild.

6530. Nanaguna erastioides. (Plate CXCI. fig. 30.)

Etanna erastioides, Wlk. Journ. Linn. Soc., Zool. vi. p. 119 (1862); Swinh. Cat. Het. Mus. Oxon. i. p. 132, & ii. p. 79.
Erastria verecunda, Pag. Zoologica, xii. Hft. 29, p. 79 (1900).

♀. Head and thorax white slightly mixed with brown; palpi rufous at sides; pectus and legs white, the fore and mid tibiæ and tarsi brown ringed with white; abdomen white dorsally tinged with brown leaving white segmental lines. Fore wing white irrorated with pale brown; a conical rufous subbasal patch from costa to vein 1 with the oblique black subbasal line near its outer edge; antemedial line indistinct, double, brownish, angled outwards below costa and at median nervure, then slightly bent inwards, then oblique, some orange scales on it in and below cell; an orange discoidal point, a rufous patch above it on costa; postmedial line minutely dentate, slightly angled outwards at vein 4; subterminal line brown defined on outer side by white, minutely dentate, incurved from costa to vein 4 and with the area beyond it suffused with red-brown; a terminal series of minute triangular black points; cilia tinged with red-brown. Hind wing white, the veins and terminal area suffused with red-brown; cilia tinged with red-brown.

Hab. Borneo, Sarawak (*Wallace*), 1 ♀; Bismarck Archipelago, type † *verecunda* in Coll. Rothschild. *Exp.* 18 millim.

*6531. Nanaguna florida.

Etanna florida, Wlk. Journ. Linn. Soc., Zool. vi. p. 119 (1862); Swinh. Cat. Het. Mus. Oxon. i. p. 132, pl. iv. f. 13, & ii. p. 79.

♂. Head, thorax, and abdomen whitish tinged with brown, the last with white segmental lines; pectus, legs, and ventral surface of abdomen white, the fore and mid tibiæ and the tarsi banded with brown. Fore wing white tinged with brown; the basal area strongly suffused with rufous and with a large tuft of raised scales below base of cell, bounded by the double oblique antemedial line, the inner line rather diffused, black, the outer line slight, brownish; a double oblique medial line with diffused brown patch on it in submedian interspace; the outer half of medial area suffused with rufous, more strongly towards costa, a black point just beyond the medial line on costa; postmedial line double, with dark point on the inner line and dark patch beyond the outer line at costa and a blackish bar on the inner line beyond the cell, slightly excurved at veins 6, 4, and 1 and incurved in submedian fold; terminal area suffused with rufous, broadly at costa, narrowing to a point at submedian

fold and with traces of a pale subterminal line on it excurved below vein 6; a terminal series of black points. Hind wing white tinged with rufous, more strongly on terminal area from apex to vein 3; cilia whitish; the underside ochreous white with narrow brownish subterminal band from costa to vein 2.

Hab. Borneo, Sarawak (*Wallace*), type † ♂ in Mus. Oxon. *Exp.* 22 millim.

*6532. Nanaguna herbida.

Dumatha herbida, Wlk. Journ. Linn. Soc., Zool. vii. p. 195 (1864); Swinh. Cat. Het. Mus. Oxon. ii. p. 78, pl. ii. f. 21.

♀. Head and thorax white suffused with olive-green and brown; abdomen brown; pectus, legs, and ventral surface of abdomen white, the fore tibiæ and the tarsi banded with brown. Fore wing whitish suffused with olive-green and some brown; some brown at base of inner margin; antemedial line rather diffused, brown, slightly excurved from costa to submedian fold, then more strongly excurved; a white bar from middle of costa and slight marks in and below the cell defined on outer side by brown points; some brown suffusion beyond lower angle of cell; postmedial line double, the inner line slight and oblique from costa to vein 4, then somewhat incurved, minutely waved and defined on outer side by white, the outer line defined on outer side by white, slightly angled outwards at vein 6, excurved at middle and below submedian fold, some brown suffusion before and beyond the lines from discal fold to inner margin, some white points beyond them on costa; a subterminal series of small black spots, slightly incurved at discal fold and excurved to termen above tornus, with white points on the outer side of the spots towards costa and white suffusion below discal fold. Hind wing red-brown. Underside of fore wing fuscous brown, the terminal area pale rufous, extending on costal area to near middle; hind wing whitish tinged with brown and with traces of a subterminal series of dark points.

Hab. Borneo, Sarawak (*Wallace*), type † ♀ in Mus. Oxon. *Exp.* 24 millim.

Genus LOPHOTHRIPA.

	Type.
Lophothripa, Hmpsn. Moths Ind. iv. p. 528 (1896)	*vitea*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd long; frons smooth, with tuft of hair above; eyes large, round; antennæ of male minutely ciliated; thorax clothed almost entirely with scales, the metathorax with large spreading crest; tibiæ moderately fringed with hair; abdomen with dorsal series of crests, the crests on 4th and 5th segments very large. Fore wing with the costa strongly arched near base, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with veins 3, 4 stalked; 5 fully developed from just above angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

6533. Lophothripa vitea.

Selepa vitea, Swinh. P. Z. S. 1885, p. 460, pl. 27. f. 17; Hmpsn. Ill. Het. B. M. ix. p. 108, pl. 163. f. 24; id. Moths Ind. ii. p. 385.

Head and thorax black-brown mixed with some white; abdomen whitish irrorated with brown, the crests darker; pectus, legs, and ventral surface of abdomen white, the fore and mid tibiæ barred with black, the tarsi blackish ringed with white. Fore wing grey-brown suffused with fuscous black to the postmedial line; subbasal line black, from costa to submedian fold; antemedial line black, oblique, with ridge of raised scales on it from costa to submedian fold; medial line formed by a ridge of raised scales, slightly excurved; a discoidal bar of raised scales; postmedial line formed of raised dark scales slightly defined on outer side by white, excurved

Fig. 93.—*Lophothripa vitea*, ♂. ½.

beyond the cell and slightly angled inwards at discal fold, oblique towards inner margin, with patches of fuscous black suffusion beyond it at costa and middle; subterminal line black slightly defined on outer side by whitish, excurved and minutely waved; a terminal series of blackish points. Hind wing brown, whitish at base; cilia with a fine white line at base and whitish tips; the underside white suffused with brown.

Ab. 1. Fore wing with whitish suffusion beyond the antemedial line and on postmedial area.

Hab, Bengal, Calcutta, 1 ♀; Bombay (*Swinhoe*), 1 ♂, 2 ♀ type, Khandálla; Madras, Nilgiris, 1 ♂; Ceylon (*Alston*), 1 ♀, Colombo (*Green*), 2 ♀, Puttlam (*Pole*), 1 ♂; Burma, Rangoon, 1 ♂, 2 ♀; Queensland, Townsville (*Dodd*), 1 ♂, 2 ♀. *Exp.* 20–26 millim.

Genus **CHLOETHRIPA**, nov.

Type, *C. chlorana*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and broadly rounded with scales in front, the 3rd long, thickly scaled and fringed with hair behind; frons smooth; eyes large, round; antennæ of male almost simple; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen with dorsal crests on basal segments. Fore wing with the costa arched near base, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 shortly stalked; 5 fully developed from angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

6534. Chloethripa chlorana.

Sarrothripa chlorana, Hmpsn. Moths Ind. iv. p. 528 (1896).

Head and thorax dark sap-green with a few whitish scales, the patagia blackish at tips; antennæ brown; abdomen fuscous brown, the crests with white mixed; pectus, femora, and ventral surface of abdomen whitish, the tibiæ and tarsi brown, the spurs and tarsi ringed with white. Fore wing sap-green irrorated with white; a diffused black and chocolate-brown shade from base in and below cell to middle of termen, extending to costa beyond the antemedial line, some brown suffusion on apical part of costa and termen; antemedial line slight, white, very oblique to above vein 1, then recurved to inner margin; small black spots at middle of cell and on

Fig. 94.—*Chloethripa chlorana*, ♂. ¾

discocellulars; postmedial line fine, white, very oblique and slightly sinuous from costa before middle to vein 6, strongly incurved below vein 3, and angled outwards at vein 2; subterminal line white, slight, curved and minutely dentate to discal fold, then stronger, angled outwards at vein 4, then incurved and ending on termen at submedian fold; the inner area tinged with rufous towards tornus, the cilia fuscous chequered with white at tips, bright rufous towards tornus. Hind wing fuscous brown, the cilia whitish at tips.

Hab. Sikhim, 1800′ (*Dudgeon*), 1 ♂ type; Assam, Khásis, 1 ♀. *Exp.* 24 millim.

Genus **MNIOTHRIPA**, nov.

Type, *M. lichenigera*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and very broadly rounded with scales in front, the 3rd moderate; frons smooth, with tuft of hair above; eyes large, round; antennæ of male almost simple; thorax clothed almost entirely with scales, the metathorax with depressed crest; fore tibiæ broadly fringed on both sides with scales, the mid and hind tibiæ moderately scaled; abdomen with dorsal crests on basal segments. Fore wing with the costa strongly arched near base, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the long areole; 11 from cell. Hind wing with veins 3, 4 strongly stalked; 5 fully developed from angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

6535. Mniothripa lichenigera.

Giaura lichenigera, Hmpsn. A. M. N. H. (7) xvi. p. 543 (1905).

Head and thorax greenish grey more or less mixed with reddish brown and black; palpi reddish brown at sides barred with black; fore tibiæ reddish brown in front barred with black; abdomen grey dorsally tinged with fuscous brown. Fore wing grey more or less tinged with green and irrorated with fuscous, sometimes mostly suffused with red-brown; a diffused black fascia in submedian interspace, sometimes confined to medial area, ending at postmedial line or downcurved at extremity and reaching tornus, another streak above inner margin from near base to postmedial line sometimes present; a subbasal line of raised black scales, oblique from costa to cell where it is angled and ending at submedian fold; a very oblique sinuous antemedial line retracted to costa; a round

Fig. 95.—*Mniothripa lichenigera*, ♂. 8/1.

tuft of raised scales in end of cell; postmedial line formed of raised black scales, sinuous, very oblique from costa to vein 4, below vein 3 retracted to lower angle of cell, then rather oblique and defined by white on outer side to inner margin, sometimes with a black patch at costa; subterminal line whitish with diffused fuscous on inner side, excurved at vein 7 and at middle, bent inwards at vein 3, then oblique to near tornus; a terminal series of black points sometimes with a fuscous band before them from below apex to vein 3. Hind wing fuscous brown with a reddish tinge, the interspaces pale except on terminal area.

Ab. 1. Fore wing suffused with deep green except on medial costal area and without the black fascia.

Ab. 2. Fore wing deep silvery purple-grey without any green tinge and without the black fascia.

Hab. Sierra Leone (*Clements*), 1 ♂; S. Nigeria, Olokemeji (*Dudgeon*), 1 ♂; Sikhim, 1 ♀; Singapore (*Ridley*, *Wood-Jones*), 4 ♂, 3 ♀ type. *Exp.* 18–20 millim.

Genus SARROTHRIPUS.

	Type.
Sarrothripus, Curtis, Brit. Ent. i. expl. pl. 29 (1824)	*revayana.*
Axia, Hübn. Verz. p. 395 (1827)	*revayana.*
Subrita, Wlk. xxxv. 1743 (1866).....	*revayana.*
Icasma, Turner, P. Linn. Soc, N. S. W. xxvii. p. 90 (1902)	*minuta.*
Nycteola. Hübn. Tent. ined.....	*revayana.*

Proboscis fully developed; palpi with the 2nd joint oblique, the 3rd downcurved, extending about twice the length of head and fringed with long hair

above and below; frons smooth; a large ridge of hair from between antennæ; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with large spreading crest; fore tibiæ fringed on both sides with long hair; abdomen with dorsal crest at base only. Fore wing long and narrow, the costa highly arched near base and the margins subparallel, the apex rounded, the termen evenly curved and not crenulate; vein 3 from before angle of cell, 5 from above angle; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long narrow aerole, or vein 7 often separate; 11 from cell. Hind wing with veins 3, 4 stalked almost to termen; 5 fully developed from angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

A. Fore wing with the postmedial line bent inwards in submedian interspace.
  a. Fore wing with the reniform eliptical and defined by black ..... *malachitis.*
  b. Fore wing with the reniform small, round, and not defined by black.
    a^1. Fore wing with the ground-colour pale yellow-green *virescens.*
    b^1. Fore wing with the ground-colour not yellow-green.
      a^2. Fore wing with the ground-colour ochreous grey. *musculana.*
      b^2. Fore wing with the ground-colour not ochreous grey ..... *revayana.*
B. Fore wing with the postmedial line oblique and minutely dentate from vein 4 to submedian fold.
  a. Fore wing with small black spot in submedian fold before subterminal line.
    a^1. Fore wing with small black spot on antemedial line above vein 1.
      a^2. Fore wing with the postmedial line excurved from below costa to vein 4 ..... *coreana.*
      b^2. Fore wing with the postmedial line angled outwards at vein 6 and inwards at discal fold ..... *parvella.*
    b^1. Fore wing without small black spot on antemedial line above vein 1.
      a^2. Fore wing wholly suffused with red-brown.
        a^3. Fore wing with the antemedial line touching the postmedial line in submedian fold ..... *symmicta.*
        b^3. Fore wing with the antemedial line well separated from the postmedial line in submedian fold.
          a^4. Fore wing without black streaks in the interspaces from subbasal to subterminal line ... *indica.*
          b^4. Fore wing with black streaks in the interspaces from subbasal to subterminal line ..... *strigivenata.*
      b^2. Fore wing grey slightly tinged with brown.
        a^3. Fore wing with the postmedial line angled inwards at discal fold.
          a^4. Fore wing with the postmedial line minutely dentate from below costa to vein 4.
            a^5. Fore wing with small black spot beyond the postmedial line at discal fold ..... *cana.*
            b^5. Fore wing without black spot beyond the postmedial line at discal fold ..... *grisea.*
          b^4. Fore wing with the postmedial line strongly dentate from below costa to vein 4..... *sinuosa.*
        b^3. Fore wing with the postmedial line not angled inwards at discal fold.
          a^4. Fore wing not tinged with green ..... *minuta.*
          b^4. Fore wing tinged with green..... *exophila.*

b. Fore wing without small black spot in submedian fold before subterminal line.
*a*¹. Fore wing without oblique dark area from middle of costa to inner margin towards tornus.
*a*². Fore wing not tinged with yellow-green.
*a*³. Fore wing not silvery white.
*a*⁴. Fore wing with triangular dark patch at middle of costal area.
*a*⁵. Fore wing with the postmedial line not angled outwards at vein 6.
*a*⁶. Fore wing without purplish red discoidal spot ..... *brunneicosta*.
*b*⁶. Fore wing with purplish red discoidal spot ..... *mauritia*.
*b*⁵. Fore wing with the postmedial line angled outwards at vein 6 ..... *mesoplaga*.
*b*⁴. Fore wing without triangular dark patch at middle of costal area.
*a*⁵. Fore wing with the postmedial line distinctly waved below vein 4 ..... *crystallites*.
*b*⁵. Fore wing with the postmedial line hardly waved below vein 4 ..... *poliophæa*.
*b*³. Fore wing with the ground-colour silvery white *aroa*.
*b*². Fore wing tinged with yellow-green ..... *avola*.
*b*¹. Fore wing with oblique dark area from middle of costa to inner margin towards tornus ..... *cebea*.
C. Fore wing with the postmedial line excurved from below costa to vein 4, then incurved ..... *bæopis*.
D. Fore wing with the postmedial line excurved below costa, then oblique ..... *abstrusa*.

6536. **Sarrothripus malachitis**, n. sp. (Plate CLXXXI. fig. 3.)

♀. Head and thorax white mixed with pale blue-green and blackish; antennæ brown except at base; tarsi ringed with black; abdomen white dorsally suffused with brown. Fore wing with the costal area white suffused in parts with blue-green, from apex obliquely to vein 1, at antemedial line, and thence to base, the rest of wing brownish grey thickly irrorated with fuscous and with some white and blue-green on terminal area between veins 4 and 2; subbasal line black, waved, from costa to submedian fold; antemedial line black, incurved in cell and at vein 1 and strongly angled outwards at submedian fold; orbicular and reniform defined by black, the former small, round, the latter elliptical; medial line black, bent outwards from below costa to the reniform, oblique and sinuous below the cell; postmedial line black, bent outwards below costa, bent inwards in submedian interspace, then outwards again; subterminal line black, minutely dentate, the veins beyond it streaked with black. Hind wing semihyaline white, the veins towards termen and the termen to vein 2 brown; the underside wholly white.

Hab. Br. E. Africa, Muani (*Betton*), 1 ♀ type. *Exp.* 24 millim.

6537. Sarrothripus virescens.

Plotheia virescens, Hmpsn. J. Bomb. Nat. Hist. Soc. xiv. p. 210, pl. B, f. 25 (1902).

Head and thorax yellow-green mixed with white and some fuscous; tegulæ and patagia with blackish lines before the tips which are white; palpi, pectus, and legs white irrorated with fuscous; abdomen brownish grey, the ventral surface white. Fore wing white suffused with yellow-green; subbasal line blackish, somewhat dentate, oblique from costa to submedian fold, then inwardly oblique; black spots in and below the cell before the double blackish antemedial line, which is excurved to median nervure, then waved, the outer line angled outwards above inner margin; reniform small, round, its centre formed of raised deep red scales and with traces of a whitish annulus with some black scales before it; postmedial line indistinctly double, minutely waved, excurved to vein 4, then incurved, and again excurved above inner margin, a black patch followed by small spots beyond it on costa; subterminal line whitish defined on inner side by black, excurved below costa and at middle and incurved at discal and submedian folds; a terminal series of black points; cilia whitish at base, brown at tips. Hind wing whitish tinged with grey-brown; the underside whiter with fuscous subterminal shade from costa to vein 2.

Hab. Sikhim (*Pilcher*), 1 ♂, 1 ♀ type. *Exp.* 24 millim.

*6538. Sarrothripus musculana. (Plate CLXXXI. fig. 4.)

Sarrothripa musculana, Ersch. Fedtsch. Reise, p. 31, pl. 2. f. 27 (1874); Staud. Cat. Lep. pal. p. 361.

♀. Head and thorax ochreous grey with some brown scales; pectus and legs whitish tinged with brown; abdomen grey-white dorsally tinged with brown. Fore wing ochreous grey irrorated with fuscous; two slight oblique dark subbasal lines from costa to submedian fold; antemedial line indistinctly double, oblique to median nervure, then incurved and angled outwards at vein 1; postmedial line indistinctly double, bent outwards below costa, angled inwards at discal fold, oblique below vein 4 and bent inwards in submedian interspace, then bent outwards above inner margin; an oblique diffused dark streak from apex to vein 7, then a waved subterminal line angled outwards at vein 4; a terminal series of minute black points. Hind wing white suffused with pale brown.

Ab. 1. Fore wing with the lines more distinct and filled in with white, the antemedial area whiter, the medial area suffused with brown and with triangular fuscous shade from costa.

Hab. W. Turkestan, Sarawschan, Alexander Mts., in Coll. Püngeler. *Exp.* 26 millim.

6529. Sarrothripus revayana.

Tortrix revayana, Scop. Annus Nat. Hist. v. p. 116 (1772); Dup. Lép. Fr. ix. p. 46, pl. 237. f. 6; Kirby, Cat. Lep. Het. p. 369; Staud. Cat. Lep. pal. p. 361; Dyar, N. Am. Lep. p. 248.
Pyralis duplana, Fabr. Gen. Ins. p. 293 (1777).
Pyralis ilicana, Fabr. Spec. Ins. ii. p. 283 (1781).
Pallium fasciatum, Retz. Gen. & Spec. Ins. p. 52 (1783).
Pyralis riuagana, Fabr. Mant. Ins. ii. p. 233 (1787).
Tortrix ramosana, Hübn. Vögel u. Schmett. pl. 75 (1793); id. Eur. Schmett., Tort. f. 10 (1796); Curt. Brit. Ent. i. expl. pl. 29 (1824); Dup. Lép. Fr., Suppl. iv. p. 119, pl. 60. f. 5.
Tortrix dilutana, Hübn. Eur. Schmett., Tort. f. 6 (1796); Dup. Lép. Fr. ix. p. 48, pl. 237. f. 7.
Tortrix undulana, Hübn. Eur. Schmett., Tort. f. 7 (1796).
Tortrix degenerana, Hübn. Eur. Schmett., Tort. f. 8 (1796).
Tortrix punctana, Hübn. Eur. Schmett., Tort. f. 9 (1796); Dup. Lép. Fr. ix. p. 48, pl. 237. f. 8.
Sarrothripus stoninus, Curt. Brit. Ent. ed. ii. i. expl. pl. 29. p. 2 (1829).
Sarrothripa russiana, Dup. Cat. Meth. p. 284 (1844).
Tortrix frigidana, Wlk. xxviii. 323 (1863).
Tortrix scriptana, Wlk. xxviii. 324 (1863).
Tortrix favillana, Wlk. xxviii. 334 (1863).
Subrita bilineatella, Wlk. xxxv. 1744 (1866).
Subrita latifasciella, Wlk. xxxv. 1746 (1866).
Subrita metaspilella, Wlk. xxxv. 1746 (1866).
Sarrothripa columbiana, H. Edw. Proc. Cal. Acad. v. p. 184 (1874); Kirby, Cat. Lep. Het. p. 370.
Sarothripus lintnerana, Speyer, Stett. Ent. Zeit. xxxvi. p. 170 (1875); Kirby, Cat. Lep. Het. p. 370.
Sarrothripa glaucana, Lamper, Ent. Tidskr. vi. p. 31 (1885).
Sarrothripa fusculana, Schmid, Corr.-blatt. Zool. Min. Regensb. xxxix. p. 75 (1886).
Nycteola cinereana, Neum. J. N.Y. Ent. Soc. i. p. 117 (1893).
Sarrothripa siculana, Fuchs, Jahrb. Nass. Ver. Nat. lii. p. 128 (1899).
Sarrothripa asiatica, Krul. Rev. Russ. Ent. iv. p. 91 (1904).
Plotheia diplographa, Hmpsn. A. M. N. H. (7) xvi. p. 582 (1905).

Head and thorax grey-brown; palpi white below towards base; pectus and abdomen whitish slightly tinged with brown. Fore wing grey-brown; an indistinct double irregularly waved subbasal line oblique from costa to submedian fold; a double sinuous antemedial line, bent outwards to inner margin; a small round rufous

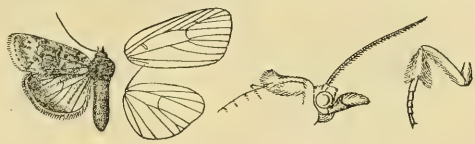


Fig. 96.—*Sarrothripus revayana*, ♂. ½.

discoidal spot; postmedial line double, waved, excurved from below costa to vein 4, then incurved and bent outwards to inner margin; an indistinct whitish subterminal line defined on inner side by small blackish spots, incurved at discal fold; a punctiform black terminal line. Hind wing grey suffused with pale reddish brown; the underside whitish, the costa and termen tinged with brown.

Ab. 1 *ilicana*. Fore wing with distinct black spots before the antemedial and subterminal lines and on discocellulars.

Ab. 2. *ramosana*. Fore wing with trifid black fascia on median nervure.

Ab. 3. *fusculana*. Fore wing with ferruginous medial spot and basal black streak.

Ab. 4. *dilutana*. Fore wing grey, the medial area red-brown, sometimes with a dark costal patch.

Ab. 5. *glaucana*. Fore wing grey-green with triangular fuscous costal patch.

Ab. 6. *degenerana*. Fore wing variegated with whitish or green.

Ab. 7. *russiana*. Fore wing green with bifid brown fascia on median nervure.

Hab. CANADA, Hudson's Bay, St. Martins Falls (*Barnston*), 1 ♂, 1 ♀ type *frigidana*, Renfrew Co. (*Grote*), 1 ♂, Br. Columbia, Pentecton (*Mrs. Nicholl*), 1 ♂; U.S.A., Massachusetts (*Sheppard*), 1 ♀ type *scriptana*, New York (*Grote*), 3 ♂, 2 ♀, N. Carolina (*Morrison*), 1 ♂, 2 ♀, Californa (*Walsingham*), 2 ♀, S. Monica (*O. Sacken*), 1 ♀, Arizona, Pinal Mts. (*Kunzé*), 1 ♀; BRITAIN; FRANCE, Sand Coll.; GERMANY, Zeller, Frey, and Leech Colls.; AUSTRIA, Frey Coll.; HUNGARY; SWITZERLAND, Frey Coll.; SPAIN; CORSICA (*Walsingham*); ITALY; SICILY, type† ♂ *siculana* in Coll. Püngeler; ALGERIA, Philippeville (*Walsingham*), 4 ♂; SCANDINAVIA; FINLAND; RUSSIA, Livonia, Zeller Coll.; ASIA MINOR; SYRIA; W. SIBERIA, Altai; E. TURKESTAN, Thian Shán; E. SIBERIA, Dahuria, Amurland; JAPAN, Oiwake (*Pryer*), 1 ♂, 1 ♀, Yokohama (*Pryer*), 2 ♀; KASHMIR (*Pilcher*), 1 ♀; PUNJAB, Simla, 1 ♂, Kangra (*Hocking*), 1 ♂, 3 ♀; MADRAS, Nilgiris (*Hampson*), 1 ♂ type *diplographa*; HAB. IGN., 1 ♂, 2 ♀ types *favillana*, *latifasciella*, and *metaspilella*. *Exp.* 20–28 millim.

Larva. Meyr. Brit. Lep. p. 35; Barrett, Lep. Brit. vi. p. 236, pl. 251. f. 3.

Green; dorsal line darker; head reddish brown. Food-plants: *Quercus*, *Salix caprea*, *Populus*, *Quercus ilex*. 5–6.

Klos, Verh. zool.-bot. Ges. Wien, lvii. (Sect. Lep.) p. 173 (1907), states that *degenerana* feeding only on *Salix* is a different species from *revayana* feeding only on Oak, but in Britain where *degenerana* is not found *revayana* feeds on both Oak and Sallow and it is impossible to separate the varieties of the imago.

6540. Sarrothripus coreana. (Plate CLXXXI. fig. 5.)

Sarrothripa coreana, Leech, Trans. Ent. Soc. 1900, p. 518.

♀. Head and thorax silvery grey tinged with brown, the palpi and base of tegulæ browner; pectus, legs, and abdomen whitish tinged with brown, the fore tibiæ and tarsi brown ringed with white. Fore wing silvery grey tinged with brown, a triangular patch of dark brown suffusion from costa, where it extends from the antemedial to beyond the postmedial line, to median nervure; two

whitish subbasal lines from costa to submedian fold with a slight black streak between them below costa; antemedial line whitish, oblique, sinuous, double to median nervure and joined at inner margin by the more erect sinuous blackish medial line defined on inner side by white; a small white discoidal lunule; postmedial line blackish defined on outer side by white, bent outwards below costa, then minutely dentate, excurved to vein 4, then incurved and bent outwards above inner margin; subterminal line whitish defined on inner side by brown and with an oblique white bar before it from costa, angled outwards at vein 7 and excurved at middle; a fine dark terminal line. Hind wing whitish suffused with brown.

Hab. Corea, Gensan (*Ito*), 1 ♀ type. *Exp.* 20 milllm.

6541. Sarrothripus parvella. (Plate CLXXXI. fig. 6.)

Subrita parvella, Wlk. xxxv. 1747 (1866).

♀. Head and thorax grey mixed with dark brown; abdomen grey tinged with pale brown; pectus, legs, and ventral surface of abdomen whitish. Fore wing grey tinged with pale red-brown; antemedial line indistinctly double, minutely waved, oblique to submedian fold and angled inwards at vein 1; medial line double, angled inwards at subcostal and median nervures and outwards in cell and above inner margin, a black spot on it at vein 1; postmedial line double, minutely waved, angled outwards at vein 6 and inwards at discal fold, oblique from vein 4 to submedian fold, then bent outwards to inner margin; subterminal line defined on inner side by dentate black marks from costa to discal fold, then by black spots; a fine terminal line with series of black points on it. Hind wing grey suffused with pale brown.

Hab. Singapore (*Wood-Jones*), 1 ♀; Java (*Horsfield*), 2 ♀ type. *Exp.* 20 millim.

*6542. Sarrothripus symmicta. (Plate CLXXXI. fig. 7.)

Sarrothripa symmicta, Turner, Pr. Linn. Soc. N. S. W. xxvii. p. 92 (1902).

♂. Head and thorax pale brown mixed with grey; abdomen grey. Fore wing pale brown suffused with grey and irrorated with fuscous; a black bar from costa at base; the subbasal line indistinct, double, minutely waved and angled outwards below costa, with obscure blackish band beyond it from subcostal nervure to vein 1; an indistinct double irregularly dentate antemedial line oblique from costa to submedian fold where it touches the postmedial line, which is double, waved, excurved below costa, oblique to submedian fold, then bent outwards to inner margin; a subterminal series of small dentate black marks and a terminal series of black points. Hind wing fuscous brown.

Hab. Queensland, Brisbane, type † ♂ in Coll. Turner. *Exp.* 24 millim.

6543. Sarrothripus indica.

Sarrothripa indica, Feld. Reis. Nov. pl. 106. f. 19 (1874); Hmpsn. Moths Ind. ii. p. 388.
Clethara pallescens, Hmpsn. Ill. Het. B.M. ix. p. 108, pl. 163. f. 25 (1893); id. Moths Ind. ii. p. 381.

Head and thorax white tinged with rufous; abdomen white dorsally tinged with pale brown; pectus and hind legs white. Fore wing white suffused with pale rufous and ferruginous; subbasal line double, waved, from costa to inner margin; antemedial line double, waved, oblique from costa to middle of cell, then erect; postmedial line double, bent outwards below costa, then minutely dentate, excurved to vein 4, then incurved and bent outwards above inner margin; subterminal line white, minutely dentate, defined on inner side by minute dentate black marks on costal half and spots on inner half; a fine terminal black line with series of black points on it. Hind wing greyish suffused with brown.

Ab. 1. Thorax with some blackish; fore wing with the subbasal line placed on a fuscous band.

Hab. Ceylon (*Green*), 2 ♀ type *pallescens*, Ohyia (*Green*), 1 ♀, Colombo (*Mackwood*), 1 ♀, Kudaoya (*Mackwood*), 1 ♀, Maskeliya (*Alston*), 1 ♀; Singapore (*Ridley*), 2 ♀; Queensland, Brisbane (*Turner*, *Lower*), 2 ♂, 1 ♀. *Exp.* 22–24 millim.

6544. Sarrothripus strigivenata. (Plate CLXXXI. fig. 8.)

Giaura strigivenata, Hmpsn. A. M. N. H. (7) xvi. p. 542 (1905).

♀. Head, thorax, and abdomen whitish tinged with brown; palpi at sides and fore tibiæ in front dark brown. Fore wing whitish irrorated and suffused with reddish brown; a diffused dark brown subbasal band from costa to submedian fold; a diffused blackish streak above median nervure and another in terminal part of cell in discal fold; diffused blackish streaks above vein 1 from before middle and on the veins beyond end of cell to the subterminal series of somewhat dentate small dark marks and more prominent rounded spot in submedian fold; traces of a double waved oblique antemedial line and of a similar postmedial line bent outwards below costa, oblique from vein 4 to submedian fold, and bent outwards above inner margin; a terminal series of slight points. Hind wing white tinged with brown, the terminal area suffused with brown.

Hab. New South Wales (*Raynor*), 1 ♀ type. *Exp.* 26 millim.

6545. Sarrothripus cana, n. sp. (Plate CXCI. fig. 29.)

♀. Head and thorax grey-white mixed with some brown; palpi with the 2nd joint blackish behind towards base; antennæ fuscous; abdomen grey-white dorsally suffused with brown. Fore wing grey-white irrorated with brown; a small subbasal black spot below costa; an indistinct curved and slightly waved antemedial line

with a black point beyond it in the cell; an indistinct medial line, double towards costa and inner margin, incurved below costa, angled outwards in cell, then angled inwards on median nervure to near the antemedial line, and oblique and sinuous to inner margin; two dark discoidal points; postmedial line indistinct, double, minutely dentate, excurved below costa, at middle, and above inner margin and incurved at discal and submedian folds, two small black spots beyond it on costa and spots at discal and submedian folds; subterminal line indistinct, dark, minutely waved, excurved below vein 7 and at middle; some brown before termen below apex; a punctiform black terminal line. Hind wing white, the costal area and terminal area to vein 2 tinged with brown; a fine brown terminal line.

Hab. Dutch N. Guinea, Mimika R. (*Wollaston*), 1 ♀ type. *Exp.* 26 millim.

6546. Sarrothripus grisea.

Selepa grisea, Hmpsn. Ill. Het. B.M. viii. p. 87, pl. 146. f. 13 (1891); id. Moths Ind. ii. p. 381.

Head and thorax white mixed with brown; abdomen whitish dorsally suffused with brown; pectus, hind legs, and ventral surface of abdomen white. Fore wing white irrorated with brown; subbasal line double, blackish, waved, extending to inner margin and with a small dentate black mark before it in cell; antemedial line double, waved, incurved in submedian interspace; a triangular blackish shade on medial costal area and some ferruginous red scales on extremity of median nervure and discocellulars; postmedial line double, bent outwards below costa, then minutely dentate, excurved to vein 4, then oblique to submedian fold and again bent outwards above inner margin, often with some rufous scales on its inner side at middle; subterminal line white, minutely dentate, defined on inner side by dentate black marks on costal half and spots on inner half, sometimes with some rufous before and beyond it below apex; a fine black terminal line with series of black points on it. Hind wing grey suffused with fuscous brown especially on terminal area.

Ab. 1. Fore wing with triangular blackish patch from middle of costa.

Hab. Sikhim (*Pilcher*), 1 ♂, 2 ♀; Assam (*Badgley*), 1 ♀; Madras, Nilgiris (*Lindsay*, *Cardew*), 1 ♂, 1 ♀ type, Palnis (*Campbell*), 1 ♂; Ceylon, Maskeliya (*Alston*), 1 ♂. *Exp.* 24-30 millim.

6547. Sarrothripus sinuosa. (Plate CLXXXI. fig. 9.)

Symitha sinuosa, Moore, Lep. Atk. p. 289 (1888); Hmpsn. Moths Ind. ii. p. 387.

Head and tegulæ dark brown with some grey scales; thorax grey with some brown scales; tarsi blackish ringed with white; abdomen

grey tinged with brown, the dorsal crest black. Fore wing grey suffused and irrorated with pale brown; a double dentate antemedial line angled outwards at subcostal and median nervures and vein 1 and inwards in cell; a patch of dark brown suffusion on medial part of costa; an indistinct double medial line, oblique to lower angle of cell, then bent inwards and somewhat dentate below submedian fold; postmedial line black, double and sinuous from costa to vein 6, then single, dentate, oblique to submedian fold and bent outwards to inner margin; subterminal line whitish, dentate, defined on each side by brown suffusion towards costa and with black spots before it below veins 4, 3, 2, the last larger; a terminal series of black points. Hind wing whitish suffused with brown; the underside whiter.

Hab. Punjab, Kangra (*Hocking*), 1 ♂, 2 ♀; Sikhim; Assam, Nágas. *Exp.* 26 millim.

6548. Sarrothripus minuta. (Plate CLXXXI. fig. 10.)

Icasma minutum, Turner, P. Linn. Soc. N. S. W. xxvii. p. 91 (1902).

Head and thorax grey mixed with fuscous; tegulæ with black medial line; patagia with black medial line and tips; metathorax edged with black; pectus and legs white, the fore and hind legs with brown mixed. Fore wing grey mixed with brown; a subbasal black striga from costa and streak on base of subcostal nervure to the double minutely waved antemedial line; a black spot in middle of cell and some black below the cell before the double sinuous medial line; a black discoidal striga; postmedial line indistinctly double, excurved from below costa to vein 5, then incurved and again excurved above inner margin; subterminal line whitish defined on inner side by dentate black marks and a black spot at submedian fold, excurved below vein 7 and at middle; a terminal series of black points. Hind wing grey suffused with brown.

Ab. 1. Fore wing whiter with prominent black spots on median nervure before and beyond the antemedial line.

Hab. Queensland, Brisbane (*Turner*), 1 ♀; N. S. Wales (*Raynor*), 1 ♂, 2 ♀. *Exp.* 18 millim.

6549. Sarrothripus exophila. (Plate CLXXXI. fig. 11.)

Sarotricha exophila, Meyr. P. Linn. Soc. N. S. W. (2) ii. p. 925 (1888); Kirby, Cat. Lep. Het. p. 370.

♀. Head and thorax white mixed with pale green and brown; tegulæ and patagia with blackish lines at middle; pectus and legs white, the fore and hind tibiæ with brown mixed, the tarsi fuscous ringed with white; abdomen pale brown, the basal crest white and black, the ventral surface white. Fore wing white mixed with green and some brown; subbasal line black, from costa to median nervure; antemedial line indistinct, oblique, sinuous; medial line black, oblique, sinuous; a slight black discoidal striga; postmedial

line black defined on outer side by white, bent outwards below costa, then minutely waved, excurved to vein 4, then incurved and again excurved above inner margin; subterminal line white defined on inner side by blackish, minutely dentate, excurved below vein 7 and at middle; a terminal series of black points. Hind wing reddish brown, the cilia whitish at tips; the underside whitish tinged with brown.

Ab. 1. Fore wing with oblique black streak from base of costa to medial line at submedian fold.

Ab. 2. Fore wing with the base and medial costal area suffused with blackish.

Hab. Queensland, Cedar Bay (*Meek*), 1 ♀, Brisbane (*Turner*), 2 ♀. *Exp.* 18 millim.

*6550. Sarrothripus brunneicosta. (Plate CLXXXI. fig. 12.)

Sarrothripa brunneicosta, Beth.-Baker, Nov. Zool. xiii. p. 225 (1906).

♀. Head and thorax white mixed with black-brown; abdomen white dorsally suffused with fuscous brown. Fore wing thickly irrorated and suffused with black-brown, the disk and an oblique diffused fascia from apex whiter; subbasal line double filled in with white, oblique, dentate, from costa to submedian fold, with brown bands before and beyond it; antemedial line double filled in with white, oblique, waved; a white discoidal bar with slight wedged-shaped black mark before it and striga beyond it; postmedial line double filled in with white, strongly bent outwards below costa, then minutely dentate, oblique below vein 4 and angled outwards above inner margin; subterminal line black defined by white on inner side, strongly dentate; a terminal series of small triangular black spots defined by white on inner side; cilia white mixed with brown. Hind wing white tinged with brown especially on terminal half from apex to vein 2.

Hab. Br. New Guinea, Aroa R. (*Meek*), type † ♀ in Coll. Rothschild. *Exp.* 24 millim.

6551. Sarrothripus mauritia.

Sarrothripa mauritia, de Joan, Ann. Soc. Ent. Fr. 1906, p. 174, pl. 9. f. 6.

♀. Head and thorax white mixed with some black and brown, the type with the tegulæ black at tips and with some purplish red before the tips; pectus and legs white, the fore and mid tibiæ irrorated with blackish, the fore tarsi banded with black, the mid tarsi with the last four segments black; abdomen fuscous, the basal crest white with black tip, the ventral surface white. Fore wing white suffused and irrorated with purplish grey, the medial area with triangular blackish patch on costa extending to beyond postmedial line at costa; antemedial line double, waved, angled outwards below costa, obsolescent towards inner margin; medial line double, waved, black, bent outwards to inner margin; a small

purplish red discoidal spot, defined on inner side by a slight white lunule; postmedial line double, bent outwards below costa, then waved, incurved below vein 4 and slightly bent outwards above inner margin, some white points beyond it on costa; subterminal line white defined on inner side by fuscous and by a black point at costa, waved, incurved at discal and submedian folds; the terminal area suffused with brown towards apex; a punctiform black terminal line; cilia chequered with brown at base. Hind wing fuscous brown, the cilia white at tips; the underside with the inner area whiter and some white at apex.

Hab. Mauritius, 1 ♀. *Exp.* 22 millim. Type † ♀ in Coll. de Joannis.

6552. **Sarrothripus mesoplaga.** (Plate CLXXXI. fig. 13.)

Sarrothripa mesoplaga, Hmpsn. A. M. N. H. (7) xvi. p. 584 (1905).

♀. Head and thorax grey-white mixed with fuscous; fore tarsi fuscous with white rings; abdomen greyish fuscous, ventrally whitish. Fore wing rather silvery white; a fuscous subbasal band defined by waved black lines from costa to submedian fold; antemedial line oblique from costa to median nervure and angled outwards on subcostal and median nervures, then incurved; a double waved medial line; a fuscous patch on costa from the inner medial to beyond the postmedial line extending to median nervure; a white discoidal elliptical spot defined by black; a double waved postmedial line bent outwards below costa, angled outwards at vein 6 and incurved below vein 4; a dentate subterminal line, bent inwards between veins 6 and 4; some fuscous suffusion on inner and terminal areas except at apex; a terminal punctiform line. Hind wing pale fuscous.

Hab. Singapore (*Ridley*), 1 ♀ type. *Exp.* 22 millim.

6553. **Sarrothripus crystallites.** (Plate CLXXXI. fig. 14.)

Sarrothripa crystallites, Meyr. Trans. Ent. Soc. 1902, p. 48.
Sarrothripus polycyma Turner, Tr. R. Soc. S. Austr. xxvii. p. 7 (1903).

♂. Head and thorax grey mixed with fuscous; palpi white in front and with black mark on 1st joint behind; tegulæ with black band near tips; meso- and metathorax with black bands; abdomen grey suffused with brown; pectus, hind legs, and ventral surface of abdomen white. Fore wing pale purplish grey irrorated with pale brown; an antemedial black striga from costa with minute streak beyond it in cell; antemedial line double, waved, angled outwards at median nervure; a double somewhat oblique waved medial line; traces of a dark discoidal point; postmedial line double, slightly bent outwards below costa and angled at vein 6, incurved below vein 4 and bent outwards at vein 1, the inner line minutely waved, some small black spots beyond it on costa; subterminal line grey defined on each side by some fuscous suffusion, minutely waved, excurved

below vein 7 and at middle; a punctiform black terminal line. Hind wing white, the terminal half suffused with brown from costa to submedian fold.

Hab. Queensland, Brisbane (*Turner*), 4 ♂. *Exp.* 22-24 millim.

6554. Sarrothripus poliophæa.

Symitha nolalella, Hmpsn. Ill. Het. B.M. ix. p. 107, pl. 163. f. 6; id. Moths Ind. ii. p. 388 (nec Wlk.).

Sarrothripa poliophæa, Hmpsn. J. Bomb. Nat. Hist. Soc. xviii. p. 655 (1907).

Head and thorax white mixed with dark brown; tarsi brown ringed with white; abdomen brown, ventrally white. Fore wing white thickly irrorated with brown and faintly tinged with yellow on costal area; subbasal line double, excurved at median nervure and ending at vein 1, a brown band on its outer edge produced above and below median nervure to the double oblique sinuous antemedial line excurved in cell; an ill-defined white discoidal lunule; postmedial line double filled in with white, slightly bent outwards below costa and excurved at vein 6, incurved below vein 4, the inner line minutely waved, some small blackish spots beyond it on costa; subterminal line whitish defined on each side by brown suffusion, excurved below vein 7 and at middle; a punctiform black terminal line; cilia yellowish white chequered with pale brown at base. Hind wing brown, the basal and inner areas white.

Hab. Assam (*Badgley*), 2 ♀; Ceylon, Dickoya (*Green*), 2 ♂, 1 ♀ type. *Exp.* 24 millim.

6555. Sarrothripus aroa. (Plate CLXXXI. fig. 15.)

Sarrothripa aroa, Beth.-Baker, Nov. Zool. xiii. p. 224 (1906).

Head and thorax silvery white variegated with fuscous; palpi black above and at extremity of 2nd joint; tegulæ with blackish patches, the patagia with black bands at middle and tips, the metathoracic crest tipped with black; pectus and legs white suffused in parts with brown, the fore femora and tibiæ blackish on inner side; abdomen silvery fuscous, the extremity blackish, the ventral surface whitish. Fore wing silvery white; a black striga from costa near base followed by a point in cell; some fuscous suffusion on base of inner margin; the antemedial area with three very irregularly waved black lines, the two outer lines conjoined to a patch on costa; an oblique striga across end of cell conjoined by some black suffusion to the antemedial line and followed by a discoidal striga and short streak from upper angle of cell to postmedial line; some black suffusion on inner area before and beyond the postmedial line, which is double with black patch at costa, slightly bent outwards below costa, angled outwards above vein 6, then irregularly waved and incurved below vein 4; subterminal line excurved at vein 6 and angled inwards at discal and submedian folds, followed by a minutely waved fuscous subterminal line bent outwards to apex and ending at

vein 1; a terminal series of small triangular black spots; cilia chequered white and pale fuscous. Hind wing white tinged with fuscous, the terminal area darker from apex to vein 2; the underside with ill-defined white streak below middle of costa and white patch at apex with blackish mark before it.

Hab. Dutch N. Guinea, Fak-fak (*Pratt*), 1 ♀; Br. N. Guinea, Aroa R. (*Meek*), type † ♂ in Coll. Bethune-Baker. *Exp.* 26 millim.

*6556. Sarrothripus avola. (Plate CLXXXI. fig. 16.)

Sarrothripa avola, Beth.-Baker, Nov. Zool. xiii. p. 225 (1906).

♂. Head and thorax white tinged with yellow-green and irrorated with some black scales; palpi with black bands on the joints and the 2nd joint black above towards base; frons with black bar; basal joint of antennæ black at tip, the shaft blackish except at base; tegulæ with medial black band; patagia with black mark at base, oblique medial bar and edged with black at tips; prothorax with black band; pectus tinged with brown; fore legs black above, the tarsi black except at base; abdomen suffused with fuscous brown. Fore wing white tinged with yellow-green and irrorated with dark brown except on basal and costal areas; subbasal points on costa and above vein 1 and a streak in cell to the double minutely dentate black antemedial line, which is oblique from costa to median nervure, then inwardly oblique, two black points beyond it on vein 1; a double irregularly waved medial black line with small black marks beyond it below costa and at angles of cell; a double dentate postmedial line, bent outwards below costa, oblique from vein 4 to submedian fold, then angled outwards; a subterminal white line slightly defined by black on inner side, forking at apex, angled inwards below costa, then minutely waved and excurved slightly at middle; a termimal series of small triangular black spots; cilia whitish and fuscous with a blackish line through them. Hind wing white, the terminal area fuscous brown, broad at costa, narrowing to a point at submedian fold. Underside of fore wing fuscous with small white spots on terminal half of costa; hind wing white, with the costal area and terminal area to submedian fold fuscous with slight whitish bar just before apex.

Hab. Br. N. Guinea, Avola (*Pratt*), type † ♂ in Coll. Bethune-Baker. *Exp.* 28 millim.

*6557. Sarrothripus cebea. (Plate CLXXXI. fig. 17.)

Sarrothripa kebea, Beth.-Baker, Nov. Zool. xiii. p. 225 (1906).

♂. Head and thorax white variegated with black-brown; palpi with black bands on 1st and 2nd joints and some black on 3rd joint; antennæ with the 1st joint black on outer side and the shaft black; tegulæ reddish brown at base and with black medial band; patagia with black patches; tibiæ and tarsi banded with black; abdomen pale

brown with the dorsal crests black. Fore wing grey-white mostly suffused with black-brown; a pure white streak above base of inner margin; an oblique white subbasal band from costa to just below cell, then bent inwards as a narrow oblique streak to the basal streak, followed by a broad oblique white band from costa to below cell, its inner edge angled inwards below costa, in and below cell, and with small black spots on it below costa, in cell, and on its lower edge, and with a trilobate mark below these bands above inner margin followed by a small spot on vein 1; a white point at lower angle of cell; postmedial line indistinctly double filled in with greyish, slightly bent outwards below costa, then with oblique sinuous white band on it to vein 4, then oblique and minutely waved to inner margin, a white point beyond it on costa, followed by an oblique white bar from costa to the postmedial band at vein 7; an oblique white bar from apex, forking at apex and with its lower extremity bent outwards; a small subterminal white spot in discal fold with the waved whitish subterminal line arising from it and slightly defined on inner side by fuscous; a grey-white patch on terminal area from discal fold to tornus extending to the postmedial line at submedian fold, then to the subterminal line only; a terminal series of black points; cilia chequered white and black, wholly black at apex. Hind wing white, the terminal area fuscous brown, broad at costa, narrowing to a point at submedian fold. Underside of fore wing fuscous with small white spots on terminal half of costa; hind wing white, the costal and terminal area to submedian fold fuscous with whitish bar just before apex.

Hab. Br. N. Guinea, Mt. Kebea (*Pratt*), type † ♂ in Coll. Bethune-Baker. *Exp.* 34 millim.

*6558. Sarrothripus bœopis. (Plate CLXXXI. fig. 18.)

Sarrothripa bœopis, Turner, Tr. R. Soc. S. Austr. xxx. p. 121 (1906).

♂. Head and thorax grey mixed with black; abdomen ochreous, dorsally tinged with fuscous especially towards extremity. Fore wing grey suffused with fuscous; an indistinct curved antemedial line; postmedial line slightly defined by whitish on inner side, incurved below vein 4; subterminal line defined by whitish on inner side, incurved below vein 4; a terminal series of dark points. Hind wind ochreous, the terminal half fuscous.

Hab. Queensland, Thursday I., type † ♂ in Coll. Turner. *Exp.* 14 millim.

*6559. Sarrothripus abstrusa. (Plate CLXXXI. fig. 19.)

Sarrothripa abstrusa, Turner, P. Linn. Soc. N. S. W. xxxiv. p. 344 (1909).

♀. Head and thorax brown mixed with grey, the tegulæ at middle and outer edge of patagia with slight black marks; pectus and mid and hind legs whitish; abdomen grey suffused with brown. Fore wing grey suffused with brown and some black, the

inner area and terminal area, except towards apex, rather greyer; subbasal line represented by a blackish bar from costa and brown patch below the cell; a round blackish patch in and below cell before the antemedial line, which is double, strongly excurved from below costa and with ridge of raised scales on the outer line below the cell; double oblique blackish striæ from middle of costa; a tuft of raised scales at lower angle of cell; postmedial costal area suffused with black; postmedial line indistinct, double, filled in with grey, excurved below costa, then oblique; a subterminal series of small black spots with larger spot in submedian fold; a fine black terminal line with black points in the interspaces. Hind wing grey suffused with fuscous; cilia whitish tinged with ochreous brown; the underside paler, the costal area tinged with ochreous brown.

Hab. Queensland, Kuranda (*Dodd*), type † ♀ in Coll. Turner. *Exp.* 22 millim.

Genus **GIAURA.**

	Type.
Giaura, Wlk. xxviii. 434 (1863)	*repletana.*
Orosa, Wlk. xxxiv. 1222 (1865)	*tortricoides.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and rather slenderly scaled, the 3rd long, frons smooth; eyes large, round; antennæ of male minutely ciliated, thorax clothed almost entirely with scales, the metathorax with depressed crest; tibiæ smoothly scaled; abdomen with dorsal crest at base only. Fore wing with the costa strongly arched near base, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with veins 3, 4 strongly stalked; 5 fully developed from angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

Sect. I. (*Giaura*). Hind wing of male with the tornal area contorted and with fringes of hair on upper and undersides.

6560. Giaura repletana.

Giaura repletana, Wlk. xxviii. 434 (1863).

♂. Head and thorax red-brown mixed with white; pectus, legs, and abdomen white. Fore wing grey-white tinged and irrorated

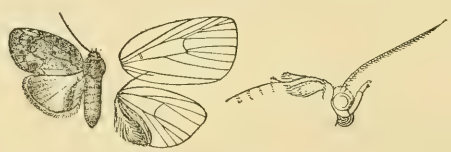


Fig. 97.—*Giaura repletana*, ♂. ½.

with pale brown; a red-brown patch on basal costal area; subbasal line slight, black, bent inwards in cell to base; antemedial line slight, blackish, incurved below subcostal nervure; medial

line slight, black, waved, connected by a streak in submedian fold with the postmedial line, which is very oblique and slightly sinuous from costa to vein 6, then minutely dentate and angled inwards in submedian fold, an oblique brown shade beyond it from costa, some red at middle and a brown patch on inner area; subterminal line indistinct, brown, somewhat excurved below vein 7 and at middle; a terminal series of blackish points. Hind wing white, the terminal area suffused with brown from costa to vein 2; the underside with the brown extending on costal area to before middle, the fringe of hair in terminal part of submedian fold brownish, a small tuft of blackish hair just above tornus.

Hab. ignotus, 1 ♂ type. *Exp.* 24 millim.

Sect. II. (*Orosa*). Hind wing of male normal.

A. Fore wing with triangular dark patch at middle of inner margin and dark apical area.
  a. Fore wing tinged with pink ..... *niveidisca.*
  b. Fore wing not tinged with pink ..... *niphea.*
B. Fore wing without triangular dark patch at middle of inner margin.
  a. Fore wing silvery white.
    a^1. Fore wing without oblique dark shade from middle of costa ..... *pura.*
    b^1. Fore wing with oblique dark shade from middle of costa. *ougarra.*
  b. Fore wing not silvery white.
    a^1. Fore wing white.
      a^2. Fore wing without dark patches on costal area.
        a^3. Fore wing with rufous discoidal spot ..... *apicalis.*
        b^3. Fore wing without rufous discoidal spot.
          a^4. Fore wing with the basal half white tinged with olive, the terminal half brown ..... *lichenosa.*
          b^4. Fore wing uniformly white irrorated with fuscous ..... *leucotis.*
      b^2. Fore wing with dark patches on costal area.
        a^3. Fore wing with dark antemedial band from costa to submedian fold and wedge-shaped dark patch on costa before middle ..... *niphostola.*
        b^3. Fore wing with dark subbasal, medial, and postmedial patches on costa.
          a^4. Fore wing with rufous scales on the outer postmedial line except towards costa ..... *leucophæa.*
          b^4. Fore wing without rufous scales on the outer postmedial line ..... *minor.*
    b^1. Fore wing grey slightly tinged with brown .... *sceptica.*
    c^1. Fore wing strongly suffused with brown.
      a^2. Fore wing with the postmedial line strongly incurved below vein 4.
        a^3. Fore wing with the postmedial line punctiform ... *tortricoides.*
        b^3. Fore wing with the postmedial line not punctiform.
          a^4. Fore wing with subbasal black spots on and below costa and above vein 1 ..... *punctata.*
          b^4. Fore wing without subbasal black spots ..... *venalis.*
      b^2. Fore wing with the postmedial line oblique below vein 4.
        a^3. Fore wing with the postmedial line punctiform ... *nigrescens.*
        b^3. Fore wing with the postmedial line not punctiform *robusta.*

6561. Giaura niveidisca. (Plate CLXXXI. fig. 20.)

Argyrothripa niveidisca, Hmpsn. Moths Ind. ii. p. 382 (1894).
Clettharra triangularis, Hmpsn. Moths Ind. ii. p. 386 (1894).

♂. Head fuscous; thorax white faintly tinged with pink, the metathoracic crest tinged with green, some brown scales sometimes on prothorax; fore and mid tibiæ and tarsi brown ringed with white; abdomen white dorsally tinged with brown, the basal crest blackish. Fore wing white faintly tinged with pink, the base and costal edge tinged with pale yellow-green, a triangular fuscous black patch on middle of inner margin; postmedial line double filled in with pale green, oblique from middle of costa to vein 3 near termen, then erect, the area beyond it fuscous black to discal fold, then white suffused with pale green; subterminal line hardly traceable, white, with two black lunules before it at middle; a punctiform black terminal line. Hind wing white, the terminal area suffused with brown.

Hab. Bhután (*Dudgeon*), 4 ♂; Assam, Dunsiri Valley (*Doherty*), type † *triangularis* in Coll. Rothschild; Burma, Tenasserim (*Doherty*), type † in Coll. Druce. *Exp.* 20 millim.

6562. Giaura niphea. (Plate CLXXXI. fig. 21.)

Ptisciana niphea, Hmpsn. Moths Ind. iv. p. 527 (1896).

Head and thorax pure white with some black-brown scales; palpi with some brown at sides; antennæ fuscous except towards base; fore tibiæ and tarsi black-brown ringed with white, the hind tibiæ brown below, the tarsi brown ringed with white; abdomen white dorsally tinged with brown leaving white segmental lines. Fore wing pure white; a curved black subbasal line from costa to submedian fold and blackish patch on inner margin; a rounded black patch on costa and streaks in and below cell before the antemedial line, which is black with some olive-green scales, oblique, excurved in and below the cell and angled inwards on median nervure and vein 1, traversing a triangular blackish patch on middle of inner margin; postmedial line slight, double, olive-green, oblique and somewhat sinuous from costa to vein 2, then erect and slightly angled inwards in submedian fold, the area beyond it fuscous black from costa to discal fold; subterminal line represented by a series of rather elongate black spots, somewhat dentate and defined on inner side by white on the black area, the mark above tornus oblique; a punctiform black terminal line; cilia white and black, wholly black towards apex. Hind wing white, the terminal area suffused with brown.

Hab. Ceylon, Peradeniya (*Green*), 1 ♂, Madulsima (*Vaughan*), 1 ♂, Puttalam (*Pole*), 1 ♀ type, Gampola (*Mackwood*), 1 ♀. *Exp.* 20 millim.

*6563. Giaura pura. (Plate CLXXXI. fig. 22.)

Barasa pura, Beth.-Baker, Nov. Zool. xiii. p. 222 (1906).

♀. Head and thorax pure white; antennæ black except at base; prothorax with a black spot; fore tarsi black ringed with white, the mid and hind tarsi blackish at extremity; abdomen white dorsally tinged with reddish brown. Fore wing silvery white; a subbasal patch of rufous suffusion from costa to submedian fold with a few black scales on it and defined on outer side by an oblique black line; a slight black medial line, oblique from costa to subcostal nervure, interrupted in cell, then sinuous and bent outwards to inner margin; postmedial line black, very oblique from costa to vein 6, excurved and obsolescent to vein 3, then incurved, and slightly excurved below vein 1; a diffused rufous patch irrorated with black, from apex to postmedial line at vein 6; the terminal area slightly irrorated with black and with some black points on costa towards apex; subterminal line blackish with a rufous spot at inner margin, minutely waved, excurved below vein 7 and at middle and angled inwards at submedian fold; some black points just before termen on the rufous patch below apex and a terminal series of minute points; cilia white with a series of brown spots. Hind wing semihyaline-white, the terminal half of costal area, the veins of terminal area and termen to submedian fold brown; cilia white with a series of brown spots towards apex; the underside with the costal area irrorated with brown and suffused with brown at middle, the terminal area suffused with brown from below apex to vein 2.

Hab. Br. New Guinea, Dinawa (*Pratt*), type † ♀ in Coll. Bethune-Baker, Ekeikei. *Exp.* 32 millim.

6564. Giaura ougarra. (Plate CLXXXI. fig. 23.)

Blenina ougarra, Beth.-Baker, Nov. Zool. xiii. p. 222 (1906).

♂. Head and thorax white irrorated with red-brown and dark brown, the tips of tegulæ mostly red; fore tarsi brown ringed with white; abdomen brown with segmental white bands, the basal crest white tipped with black, the ventral surface white. Fore wing silvery white irrorated with fuscous; a fuscous and reddish patch on basal costal area; traces of a medial line, oblique from costa to discal fold, then sinuous, an oblique fuscous band on costal area between it and the postmedial line, which is represented by a series of black points, oblique from costa to vein 4, then incurved, some red suffusion from it to subterminal line between veins 6 and 4 and on terminal area from apex to vein 2; some black points on postmedial part of costa; subterminal line blackish, excurved below vein 7 and at middle and angled inwards at discal fold; a terminal series of black points; cilia chequered white and brown. Hind wing white, the terminal area suffused with brown, broadly at

costa, narrowing to a point at submedian fold; cilia brownish at base from apex to vein 3; the underside with brown patch on middle of costal area.

Hab. Br. N. Guinea, Owgarra (*Meek*), 1 ♂. *Exp.* 30 millim. Type † in Coll. Bethune-Baker.

*6565. Giaura apicalis. (Plate CLXXXI. fig. 24.)

Cletthara apicalis, Hmpsn. Moths Ind. ii. p. 386 (1894).

♂. Head and thorax white mixed with pale red-brown; palpi with some black at base of 2nd and 3rd joints; abdomen white dorsally tinged with rufous. Fore wing white irrorated with brown especially on terminal half and with a rufous tinge beyond the cell; a short oblique blackish streak from base of costa forking in discal and submedian folds and with some dark suffusion beyond it on costa; antemedial line almost medial, indistinct, double, sinuous, with blackish point on its outer edge at median nervure; a faint rufous discoidal spot; postmedial line indistinct, white defined on inner side by black points and small spot at vein 2, oblique from costa to vein 6, then minutely dentate; two small black spots on postmedial part of costa; subterminal line indistinct, blackish, somewhat excurved at middle; an oblique diffused black patch from apex; a terminal series of small black spots; cilia white with series of brownish spots. Hind wing white, the veins brownish, the terminal area suffused with fuscous brown narrowing to a point at vein 1; cilia white with a brownish line except towards tornus.

Hab. Burma, E. Pegu (*Doherty*), type † ♂ in Coll. Rothschild. *Exp.* 28 millim.

6566. Giaura lichenosa. (Plate CLXXXI. fig. 25.)

Ptisciana lichenosa, Hmpsn. Moths Ind. iv. p. 527 (1893).

♂. Head and thorax white; palpi black-brown at sides; antennæ fuscous except at base; fore and mid tibiæ and tarsi banded with brown; abdomen white dorsally suffused with brown. Fore wing with the basal half white mixed with pale olive; a pale olive patch on base of costa defined by black and extending to submedian fold, the white area bounded by the indistinctly double black medial line, which is oblique to lower angle of cell and slightly excurved below costa, erect and sinuous below the cell; the terminal half pale red-brown mixed with some white; some black suffusion beyond lower angle of cell; postmedial line indistinctly double filled in with whitish, oblique from below costa to vein 6, then erect and sinuous; subterminal line black, excurved below vein 7 and at middle, a white patch beyond it at apex and slight patch at tornus; a punctiform black terminal line; cilia pale brown mixed with whitish. Hind wing whitish tinged with brown, the terminal

area suffused with brown; the underside white, the costal area and veins irrorated with brown, the terminal area suffused with brown from apex to submedian fold.

Hab. Assam, Khásis, 1 ♂ type. *Exp.* 24 millim.

6567. Giaura leucotis. (Plate CLXXXI. fig. 26.)

Blenina leucotis, Hmpsn. A. M. N. H. (7) xvi. p. 548 (1905).

♀. Head and thorax white slightly irrorated with fuscous; palpi blackish above; fore tarsi banded with black; abdomen white. Fore wing glistening white, rather sparsely irrorated with fuscous; a minute black streak in base of cell; subbasal line angled outwards in cell, then oblique to submedian fold; antemedial line double, the inner line indistinct, strongly waved; medial area clouded with black towards costa and from cell to inner margin and with a diffused black mark with two points beyond it in submedian interspace; postmedial line angled inwards below costa, oblique to vein 6, then indistinct and minutely dentate to vein 3 where it is bent inwards, then waved to inner margin, a blackish shade beyond it on costal area followed by two small spots; a diffused fuscous subterminal line angled inwards in discal and submedian folds and excurved at middle; termen clouded with fuscous, a terminal series of black points. Hind wing white, the terminal area tinged with fuscous from apex to vein 2.

Hab. Br. E. Africa, Uganda Ry., Mile 478 (*Betton*), 1 ♀ type. *Exp.* 30 millim.

6568. Giaura niphostola, n. sp. (Plate CLXXXI. fig. 27.)

♂. Head and thorax white, the palpi and tegulæ with some brown scales; abdomen white tinged with brown. Fore wing white sparsely irrorated with brown scales; a blackish point below base of costa and subbasal points below costa and in cell; an oblique antemedial brown band from costa to submedian fold; traces of a sinuous brown medial line, crossed by a slight streak on vein 1 and with wedge-shaped patch of brown suffusion beyond it on costal area; a small black discoidal spot produced to a short streak in discal fold; postmedial line double, angled inwards below costa and outwards at vein 6, then oblique and dentate; subterminal line indistinct, dark, somewhat maculate, excurved below vein 7 and at middle; the terminal area suffused with brown, with slight dark streaks in the interspaces and an oblique brown shade from just below apex to the postmedial line. Hind wing whitish suffused with brown.

Hab. Br. N. Guinea, Milne Bay (*Meek*), 1 ♂ type. *Exp.* 24 millim.

6569. Giaura leucophæa. (Plate CLXXXI. fig. 28.)

Giaura leucophæa, Hmpsn. A. M. N. H. (7) xvi. p. 541 (1905).

Head and thorax white and dark brown; palpi with the 2nd and 3rd joints black except at extremities; antennæ dark; tibiæ and tarsi banded with fuscous; abdomen whitish tinged with fuscous. Fore wing white slightly irrorated with dark brown; a black point at base of costa; a brown patch on costal area with two obliquely placed black points on it before the oblique slightly sinuous black antemedial line with a small black spot beyond it above vein 1; a rather indistinctly double, waved, somewhat oblique medial line with a blackish patch beyond it on costa and in end of cell, another patch beyond lower angle of cell before the rather indistinctly double postmedial line, which is bent outwards below costa, then sinuous and with rufous scales on the outer line, a black patch beyond it on costa; subterminal line angled inwards below costa and at discal fold, excurved at vein 7, slightly dentate at veins 4, 3 and with black spot on it at submedian fold; a blackish patch at apex and band just before termen to vein 5; a terminal series of black points; cilia white intersected with fuscous. Hind wing pale wholly suffused with fuscous.

Hab. Borneo, Kuching, 1 ♂, 1 ♀ type. *Exp.* 20 millim.

6570. Giaura minor. (Plate CLXXXI. fig. 29.)

Blenina minor, Hmpsn. Moths Ind. iv. p. 525 (1896).

♀. Head and thorax white; frons with blackish bar above; meso- and metathorax with ill-defined blackish and rufous bands; palpi black-brown, the extremities of 2nd and 3rd joints white; tibiæ and tarsi banded with black-brown; abdomen white tinged with brown, the basal crest tipped with blackish. Fore wing white slightly suffused in parts with pale olive ochreous; a fuscous subbasal patch on costa defined at sides by black bars; antemedial line almost medial, black, oblique, waved; a diffused oblique fuscous band beyond it from costa to postmedial line at vein 1; two black discoidal points; postmedial line black, bent outwards below costa, then erect, waved, a blackish patch beyond it on costal area with a white point on it, followed by a black point; subterminal line blackish, obsolete above vein 7, excurved at vein 6 and middle; terminal area largely suffused with blackish especially towards apex where it is obliquely cut off; a punctiform black terminal line; cilia fuscous mixed with white. Hind wing whitish suffused with brown; the underside whiter, the costal and terminal areas suffused with brown.

Hab. Ceylon, Udagama (*Mackwood*), 1 ♀ type. *Exp.* 28 millim.

6571. Giaura sceptica.

Symitha sceptica, Swinh. P. Z. S. 1885, p. 461, pl. 27. f. 6; Hmpsn. Moths Ind. ii. p. 385.

Head and thorax grey tinged with brown; palpi with black spots at base of joints; tegulæ sometimes with blackish band before tips, the mesothorax sometimes with pair of blackish spots; pectus and legs white, the fore and mid tibiæ and tarsi with brown mixed, the tarsi ringed with white; abdomen white dorsally suffused with brown. Fore wing grey-white irrorated and suffused with pale brown; a black point at base; a curved series of three subbasal points below costa and in and below cell; a blackish medial line angled inwards below costa, at median nervure and vein 1, and outwards in cell and submedian fold; black points on discocellulars and just below angle of cell; postmedial line whitish defined by slight black points on inner and outer sides and by some fuscous suffusion on outer, oblique from costa to vein 6, angled inwards at discal fold, incurved below vein 4 and excurved above inner margin; a waved blackish subterminal line, excurved below vein 7 and at middle and incurved at discal and submedian folds; a terminal series of black points. Hind wing white tinged with brown, the veins and terminal area suffused with brown; cilia white slightly tinged with brown at base; the underside white, the termen suffused with brown from apex to vein 2.

Hab. Punjab, Almorah (*Boys*), 1 ♂, 1 ♀; Bhután (*Dudgeon*), 1 ♂; Bombay (*Swinhoe*), 1 ♂ type, N. Kanara, Karwar (*T. R. Bell*), 1 ♂, 1 ♀; Ceylon, Peradenyia (*Green*), 1 ♂, 2 ♀; Burma, E. Pegu; Andamans. *Exp.* 20–22 millim.

6572. Giaura tortricoides.

Orosa tortricoides, Wlk. xxxiv. 1223 (1865); Hmpsn. Ill. Het. B.M. ix. p. 102, pl. 163. f. 23; id. Moths Ind. ii. p. 385.
Sarrothripa curvilinea, Snell. Tijd. v. Ent. xxii. p. 93, pl. 10. ff. 9 *a*, *b* (1879); Kirby, Cat. Lep. Het. p. 369.

Head, thorax, and abdomen brown; tarsi fuscous with pale rings; pectus and ventral surface of abdomen whitish. Fore wing

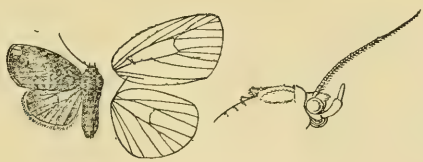


Fig. 98.—*Giaura tortricoides*, ♂. ½.

brown with slight dark irroration; a curved black antemedial line from costa to submedian fold, slightly defined on outer side by

greyish; medial line black slightly defined on inner side by greyish, somewhat punctiform, excurved below costa and cell; postmedial line black, punctiform, oblique and somewhat sinuous from costa to vein 4, then incurved and again excurved above inner margin, usually with a black mark before it above submedian fold; an indistinct crenulate blackish subterminal line, bent inwards between veins 6 and 5 and incurved at submedian fold; a terminal series of slight black striæ. Hind wing whitish suffused with brown; the underside white tinged and irrorated with brown.

Ab. 1. Fore wing with black suffusion on basal costal area and in submedian interspace to postmedial line where it is joined by an oblique shade from apex.

Ab. 2. Fore wing whitish except basal and medial costal areas and a triangular patch on terminal area extending on termen from apex to vein 2.—Borneo.

Hab. Ceylon, 1 ♀ type, Colombo (*Green*), 1 ♂, Puttalam (*Pole*), 1 ♀; Borneo, Sarawak (*Wallace*), 1 ♀. *Exp.* 20–24 millim.

6573. Giaura punctata.

Sarotricha punctata, Lucas, P. Linn. Soc. N. S. W. (2) iv. p. 1075 (Apr. 15th, 1890); Kirby, Cat. Lep. Het. p. 370.
Symitha punctata, Swinh. Trans. Ent. Soc. 1890, p. 236, pl. 7. f. 15 (June, 1890); Hmpsn. Moths Ind. ii. p. 386.

Head and thorax greyish brown slightly mixed with fuscous, the tegulæ, patagia, and mesothorax with paired black spots; palpi with black spot on 1st joint, the 2nd and 3rd joints black at base; abdomen brown with slight pale and fuscous bands towards base; pectus, femora, and ventral surface of abdomen whitish. Fore wing grey-brown irrorated with fuscous; obliquely placed subbasal black spots on and below costa and above vein 1; a sinuous blackish medial line slightly angled inwards on median nervure, with fuscous suffusion between it and the postmedial line on costal half; postmedial line indistinctly double, blackish filled in with grey, bent outwards below costa and incurved below vein 4, its angle below costa connected by a blackish bar with costa, some fuscous suffusion beyond it at middle and towards inner margin; a subterminal series of small black spots, the spot above and below vein 6 somewhat dentate, incurved at discal fold and below vein 3; a terminal series of rather triangular black points; an oblique black shade from apex. Hind wing pale brown, the terminal area suffused with fuscous; the underside brownish white, the terminal area suffused with fuscous.

Hab. Sikhim (*Dudgeon*, *Pilcher*), 5 ♂, 1 ♀; Bhután (*Dudgeon*), 1 ♂; Assam, Nágas (*Doherty*), 1 ♂; Burma, Rangoon, 1 ♀ type *Symitha punctata*, Tenasserim; Queensland, type † in Coll. Lucas. *Exp.* 22–24 millim.

*6574. Giaura venalis. (Plate CLXXXI. fig. 30.)

Dendrothripa venalis, Beth.-Baker, Nov. Zool, xiii. p. 226 (1906).

♂. Head and tegulæ white, the latter with brown spots at sides; palpi brown at base and tips; antennæ black except at base; thorax white mixed with brown especially on patagia and metathorax; abdomen whitish suffused with brown. Fore wing brown mixed with white and irrorated with black, the medial area white from beyond lower angle of cell to inner margin; black points below base of costa and cell; two widely separated subbasal sinuous black lines from costa to submedian fold; antemedial line black defined by white on inner side, oblique, sinuous; postmedial line blackish slightly defined on outer side by white, very oblique and sinuous from costa to vein 4, then strongly incurved and oblique to inner margin; subterminal line white defined on inner side by brown and with slight white suffusion before it towards costa, excurved below vein 7 and at middle and angled inwards at discal and submedian folds; a fine terminal black line. Hind wing whitish tinged with brown, the veins and terminal area suffused with brown.

Hab. Br. New Guinea, Dinawa (*Pratt*), type † ♂ in Coll. Bethune-Baker. *Exp.* 22 millim.

*6575. Giaura nigrescens. (Plate CLXXXI. fig. 31.)

Barasa nigrescens, Beth.-Baker, Nov. Zool. xiii. p. 222 (1906).

♀. Head and thorax grey mixed with black; palpi whitish in front and at base of 3rd joint; antennæ black except basal joint; abdomen grey dorsally suffused with fuscous, the basal crest white tipped with black, the ventral surface irrorated with black towards extremity. Fore wing grey tinged with brown and suffused with black especially on basal area; antemedial line rather diffused, black defined on outer side by whitish, erect, minutely waved; a black medial line, oblique from costa to discal fold, then minutely waved, an elliptical black spot beyond it in end of cell; postmedial line formed by double series of black points and with rather diffused spots on costa, oblique from below costa to vein 6 and below vein 4; subterminal line indistinct, pale, defined on inner side by fuscous, excurved below vein 7 and at middle; a diffused blackish apical patch and terminal series of black striæ. Hind wing white, the terminal area suffused with fuscous brown from apex to submedian fold when it narrows to a point; cilia brown with a white line at base, wholly white towards tornus; the underside with the costal area suffused and irrorated with fuscous.

Hab. Br. New Guinea, Dinawa (*Pratt*), type † ♀ in Coll. Bethune-Baker. *Exp.* 34 millim.

6576. Giaura robusta. (Plate CLXXXI. fig. 32.)

Selepa robusta, Moore, Lep. Atk. p. 288 (1888); Hmpsn. Moths Ind. ii. p. 381.

♀. Head and thorax whitish mixed with brown; fore tibiæ and tarsi banded with blackish; abdomen whitish dorsally suffused with brown, the basal crest blackish. Fore wing whitish tinged with pale brown and suffused in parts with blackish especially on apical area; subbasal line black, curved inwards to base at subcostal nervure; a slight black streak below base of cell; antemedial line rather diffused, blackish, indistinct except towards costa, angled outwards at subcostal nervure, then waved; a diffused blackish medial line from cell to inner margin; postmedial line double, black filled in with whitish, obliquely excurved from costa to vein 4, then slightly incurved, some black suffusion beyond it on costal area with a pale point on costa; subterminal line black defined on inner side by white suffusion and with white suffusion beyond it on inner half, minutely dentate; a faint dark shade just before termen and a punctiform terminal line. Hind wing whitish suffused with brown especially on terminal area from apex to vein 2; the underside white, the terminal area tinged with brown from apex to vein 2.

Hab. Sikhim; Assam, Khásis, 1 ♀. *Exp.* 26–30 millim.

Genus PTISCIANA.

	Type.
Ptisciana, Wlk. xxxii. 912 (1865)	*seminivea.*
Argyrothripa, Hmpsn. Moths Ind. ii. p. 380 (1894)	*seminivea.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and slenderly scaled, the 3rd very long; frons smooth, with tuft of hair above; eyes large, round; antennæ of male with fascicles of long cilia; thorax clothed almost entirely with scales, the prothorax with flattened crest, the metathorax with large spreading crest; fore tibiæ fringed on both sides with long hair, the mid and hind tibiæ moderately fringed with hair; abdomen with dorsal crest at base only. Fore wing with the costa arched near base, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with vein 3 from before angle of cell; 4, 5 from angle or stalked; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

6577. Ptisciana seminivea.

Ptisciana seminivea, Wlk. xxxii. 912 (1865).
Symitha lilacina, Moore, Lep. Atk. p. 289 (1888); Hmpsn. Moths Ind. ii. p. 380.

Head and thorax red-brown; palpi white in front; tips of tegulæ and the patagia white; pectus and legs white mixed with red-brown; abdomen white dorsally suffused with brown, the basal crest white at tip. Fore wing silvery white slightly irrorated with red-brown; a small tuft of white scales at base of median nervure;

antemedial line indistinctly double, brownish, oblique to subcostal nervure and bent outwards below the cell, a small tuft of white scales on its outer edge in the cell and another on discocellulars; postmedial line brownish, strongly bent outwards from below costa

Fig. 99.—*Ptisciana seminivea*, ♂. ½.

to vein 6, angled inwards at discal fold, outwards at veins 4, 3, then bent inwards and dentate to inner margin, some brown points beyond it on costa; subterminal line white slightly defined on inner side by brown and with brown point at costa, minutely waved, somewhat angled inwards at discal and submedian folds. Hind wing whitish suffused with red-brown. Underside of both wings red-brown, the costa of fore wing white with some dark points towards apex.

Hab. Sikhim; Travancore, Pirmád (*Mrs. Imray*), 2 ♀; Ceylon, Pundaloya (*Green*), 1 ♂, Gampola (*Mackwood*), 1 ♂, Galboda (*Mackwood*), 1 ♂; Borneo, Sarawak (*Wallace*), 1 ♂ type. *Exp.* 30–34 millim.

Genus **CLETTHARINA**.

Type.

Clettharina, Hmpsn. Moths Ind. ii. p. 379 (1894) ..... *nitens*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to well above vertex of head and fringed with scales in front and behind towards extremity, the 3rd joint short, oblique; frons smooth; eyes large, round; antennæ of male laminate; thorax clothed almost entirely with scales and without crests; fore tibiæ fringed at sides with long hair, the mid and hind tibiæ slightly fringed with hair; abdomen with dorsal crests on two basal segments. Fore wing with the costa strongly arched near base, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long narrow areole; 11 from cell, a medial ridge of raised scales across end of cell and submedian interspace. Hind wing with veins 3, 4 from angle of cell; 5 from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell to beyond middle; a large patch of whitish androconia on upperside between lower angle of cell and tornus.

*6578. Clettharina nitens.

Clettharina nitens, Hmpsn. Moths Ind. ii. p. 379 (1894).

♂. Head, thorax, and abdomen silvery grey tinged with red-brown. Fore wing silvery grey tinged with brown, the cell and submedian interspace with a metallic golden gloss to the medial

ridge of blackish scales, the postmedial area with a golden gloss between veins 6 and 1; antemedial line indistinctly double, blackish, strongly excurved; reniform defined by black, its outer edge produced to a point; traces of a sinuous medial line; postmedial line blackish, obliquely curved outwards from costa to

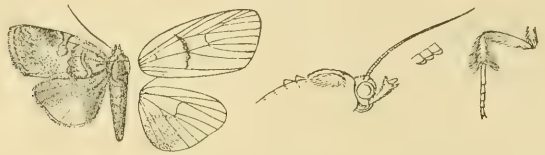


Fig. 100.—*Clettharina nitens*, ♂. ½.

vein 6, excurved to vein 4, then bent inwards and dentate; subterminal line indistinct, whitish defined on inner side by blackish points, dentate at veins 7, 6; a terminal series of black striæ. Hind wing silvery grey, the patch of androconia on terminal area between lower angle of cell and tornus chalky white; the underside silvery grey with the inner area white.

Hab. Burma, E. Pegu (*Doherty*), type † ♂ in Coll. Rothschild. *Exp.* 30 millim.

Genus **LAMPROTHRIPA**, nov.

Type, *L. scotia.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd moderate; frons smooth, with tuft of hair above; eyes large, round; antennæ of male almost simple; thorax clothed almost entirely with scales, the metathorax with depressed crest; fore tibiæ fringed on both sides with long hair, the mid and hind tibiæ moderately fringed with hair; abdomen with dorsal crests on two basal segments. Fore wing with the costa highly arched near base, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Fore wing of male with small hyaline fovea at upper angle of cell.

*6579. Lamprothripa lactaria.

Nola lactaria, Græs. Berl. ent. Zeit. xxxviii. p. 211 (1892); Staud. Cat. Lep. pal. p. 360.
Asinduma korbi, Püng. Iris, xxi. p. 302, pl. iv. f. 29 (1908).

♂. Head and thorax pure white with diffused olive-fuscous patches on pro- and metathorax; palpi and frons black-brown; antennæ brown except at base; legs brown, the tarsi ringed with white; abdomen white tinged with brown leaving white segmental bands. Fore wing silvery white on costa to before middle, the

costal edge fuscous, on inner margin to well beyond middle, the area beyond the cell tinged with fuscous to postmedial line, the terminal area red-brown; a tuft of silver scales in base of cell followed by two oblique striæ, the 1st inwardly oblique, the 2nd outwardly oblique; tufts of black and silver scales at upper and lower angles of cell; postmedial line fuscous with tufts of silvery scales on it, strongly bent outwards below costa, rather oblique to vein 4, inwardly oblique to vein 2 and outwardly oblique to inner margin, two

Fig. 101.—*Lamprothripa lactaria*, ♂. ½.

slight dark spots beyond it on costa; subterminal line pale slightly defined on inner side by fuscous, obliquely incurved to vein 6, then dentate and angled inwards below vein 3; a rufous terminal line; cilia rufous and fuscous with a fine whitish line at base. Hind wing pure white with faint diffused brown subterminal shade, the apical area suffused with brown; a slight brown terminal line; cilia tinged with brown at tips; the underside white, the costal and apical areas tinged and irrorated with brown, a slight discoidal point.

Hab. E. Siberia, Ussuri, Kasakewitsch (*Korb*), type † *korbi* in Coll. Püngeler. *Exp.* 30 millim.

Sect. II. Fore wing of male without fovea at upper angle of cell.

A. Fore wing with the inner area creamy white to the postmedial line.
  a. Fore wing with the white area extending at base to costa ..... *orbifera*.
  b. Fore wing with the white area not extending at base to above median nervure ..... *hampsoni*.
B. Fore wing with the inner area not creamy white.
  a. Fore wing grey-white suffused with brown ..... *arcuosa*.
  b. Fore wing bright rufous ..... *scotia*.

6580. **Lamprothripa orbifera.** (Plate CLXXXII. fig. 1.)

Argyrothripa orbifera, Hmpsn. Moths Ind. ii. p. 380 (1894).

Head, thorax, and abdomen white slightly tinged with yellow; fore tibiæ fringed with fuscous hair, the tarsi fuscous. Fore wing with the basal area and inner area to postmedial line white slightly tinged in parts with yellow, the outer edge of the basal area obliquely curved, the rest of wing cuprous red suffused with violaceous grey; antemedial line slight, dark, oblique, from costa to submedian fold and slightly bent outwards to inner margin;

a large white patch tinged with yellow in and beyond end of cell and extending to costa; the reniform defined by black, round, with tuft of white scales in centre; a small patch of blackish suffusion beyond lower angle of cell; postmedial line blackish defined on outer side by white, bent outwards below costa, then somewhat oblique and sinuous to vein 4, then strongly incurved; subterminal line silvery white, angled inwards below costa and at discal and submedian folds and excurved below vein 7 and at middle, some white suffusion beyond it towards apex and a yellowish white patch with some black above and below it in submedian interspace. Hind wing white tinged with brown, the terminal area suffused with brown.

Hab. Sikhim, 2000′ (*Pilcher*), 1 ♀; Burma, E. Pegu, 5000′ (*Doherty*), type † ♂ in Coll. Rothschild. *Exp.* ♂ 24, ♀ 26 millim.

*6581. **Lamprothripa hampsoni.** (Plate CLXXXII. fig. 2.)

Tarache hampsoni, Wileman, Trans. Ent. Soc 1911, p. 233.

♂. Head fuscous brown mixed with white; thorax yellowish white with slight dark streaks on patagia; abdomen ochreous white dorsally suffused with brown. Fore wing brown mixed with some grey-white and suffused with gold and silver, the terminal area with cupreous red; the inner area yellowish white to postmedial line, at base extending to cell, on medial area to vein 1; traces of an oblique waved antemedial line except on inner area; oblique medial black striæ of raised scales in cell and submedian interspace; orbicular absent; reniform round, yellowish white slightly defined by black and with fuscous centre, some yellowish suffusion before it in cell and white suffusion above it on costal area extending to just beyond the postmedial line, which is slightly bent outwards below costa, then minutely waved, excurved to vein 4, then incurved and outwardly oblique to inner margin; subterminal line slight, grey-white, excurved below vein 7 and at middle and with grey irroration beyond it at apex and tornus; termen narrowly grey with series of slight black striæ on it; cilia with very slight grey line through them. Hind wing uniform greyish brown; the underside whitish tinged with brown especially on costal and terminal areas.

Hab. Japan, Tu-shima, type † in Coll. Wileman. *Exp.* 24 millim.

*6582. **Lamprothripa arcuosa.** (Plate CLXXXII. fig. 3.)

Sarrothripa arcuosa, Beth.-Baker, Nov. Zool. xiii. p. 225 (1906).

♀. Head and thorax whitish suffused with grey and brown; tegulæ white at base; tarsi ringed with white; abdomen grey suffused with fuscous, the ventral surface grey. Fore wing grey-white irrorated and in parts suffused with brown; a very obliquely excurved blackish line slightly defined by white on inner side

from base of costa to inner margin before middle, slightly waved in cell and with broad band of black-brown suffusion beyond it; small black spots in end of cell and on discocellulars; postmedial line double, brownish filled in with whitish from costa to vein 2, then single and defined by pure white on outer side, oblique from costa to vein 7, then minutely waved, incurved below vein 4, angled outwards at vein 2 and inwards below it, and bent outwards to inner margin, a patch of black suffusion beyond it between veins 5 and 3 extending to subterminal line, and a dark streak in submedian fold; subterminal line waved towards costa, angled outwards at vein 7, with slight black streaks above and below vein 6, then represented by slight dark spots in the interspaces; a diffused brown terminal line; cilia grey-brown with slight white points at base. Hind wing fuscous brown, the costal area whitish to beyond middle; the underside grey-brown with slight whitish streaks on terminal area from apex to vein 4.

Hab. Br. N. Guinea, Dinawa (*Pratt*), type † ♀ in Coll. Bethune-Baker. *Exp.* 28 millim.

6533. Lamprothripa scotia.

Ptisciana scotia, Hmpsn. J. Bomb. Nat. Hist. Soc. xiv. p. 211 (1902).

♂. Head, thorax, and abdomen bright rufous slightly tinged with whitish; pectus and ventral surface of abdomen paler. Fore wing bright rufous mixed with some whitish and with a purplish gloss in parts; a slight dark streak in submedian fold to the antemedial line, which is double, acutely angled outwards at subcostal nervure and in submedian fold, angled inwards at vein 1 and outwards above inner margin; small tufts of raised black scales in middle of cell and on discocellulars; postmedial

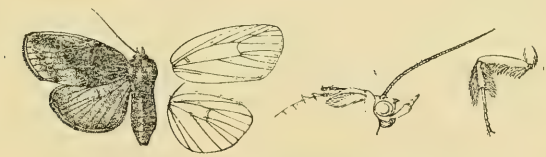


Fig. 102.—*Lamprothripa scotia*, ♂. ½.

line defined on outer side by whitish and on inner side also towards costa, slightly sinuous, very oblique from costa to vein 6, then inwardly oblique, the veins beyond it with slight dark streaks, more prominent towards costa where there is some whitish between them; subterminal line whitish with slight dark streaks before it below costa and at middle, slightly angled inwards below costa and bidentate at middle, then oblique; a fine red-brown terminal

line and whitish line at base of cilia. Hind wing reddish brown with a fine whitish line at base of cilia.

♀. Patagia purplish black on outer edge; fore wing with purplish black suffusion irrorated with silvery scales from base to postmedial line except at costa and from the angle of the postmedial line to apex.

Hab. Sikhim, 1800′ (*Dudgeon*), 1 ♀ type, Singapore (*Ridley*), 2 ♂. *Exp.* 34 millim.

Genus ASINDUMA.

Type.

Asinduma, Wlk. Journ. Linn. Soc., Zool. vii. p. 167 (1864) ... *exscripta.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately fringed with hair in front, the 3rd moderate; frons smooth with tuft of hair above; eyes large, round; antennæ of male almost simple; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with depressed crest; tibiæ smoothly scaled; abdomen with dorsal crests on two basal segments. Fore wing with the costa arched near base, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the chocolate-brown on terminal area not extending to costa before the reniform.
  a. Fore wing with the subterminal line highly dentate ..... *exscripta.*
  b. Fore wing with the subterminal line minutely dentate ... *olivana.*
B. Fore wing with the chocolate-brown on terminal area extending to costa before the reniform ..... *elæota.*

6584. Asinduma exscripta.

Asinduma exscripta, Wlk. Journ. Linn. Soc., Zool. vii. p. 167 (1864); Swinh. Cat. Het. Mus. Oxon. ii. p. 78, pl. ii. f. 15.

♂. Head red-brown irrorated with white; thorax olive-green; pectus and legs white, the latter irrorated with red-brown, the tarsi ringed with white; abdomen grey-brown, the ventral surface

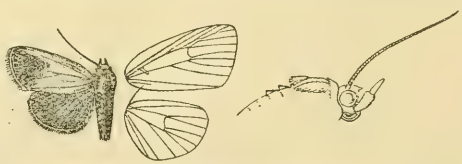


Fig. 103.—*Asinduma exscripta*, ♂. ½.

brownish white. Fore wing olive-green with a silvery gloss; indistinct oblique waved subbasal and antemedial lines, the former ending at submedian fold; a slight discoidal lunule defined on

outer side by silvery white; postmedial line olive-green, bent outwards and almost obsolete below costa, then red-brown and slightly incurved to submedian fold, then olive-green and dentate, some purplish fuscous before it beyond the cell, the whole area beyond it chocolate-brown except at costa and inner margin with the very highly dentate silvery grey subterminal line on it; a fine silvery grey line just before termen; cilia red-brown tinged with grey. Hind wing dark brown with a cupreous gloss, the inner area greyer. Underside of fore wing dark brown with some whitish suffusion and white points on costa towards apex; hind wing grey-brown.

Hab. Perak, Kinta Valley (*Ridley*), 1 ♂; Borneo, Sarawak (*Wallace*), type † in Mus. Oxon. *Exp.* 26 millim.

6585. **Asinduma olivana.** (Plate CLXXXII. fig. 4.)

Argyrothripa olivana, Swinh. A. M. N. H. (6) xvii. p. 362 (1896).

♂. Head red-brown irrorated with white; thorax olive-green; pectus white; legs brown, the tarsi ringed with white; abdomen brown, the ventral surface brownish white. Fore wing olive-green with a silvery gloss; subbasal line olive-green, double, waved, from costa to submedian fold; antemedial line olive-green, double towards costa, oblique, waved; a narrow discoidal olive-green lunule slightly defined on outer side by silvery white; postmedial line olive-green, almost obsolete and bent outwards below costa, then red-brown and slightly incurved to submedian fold, then olive-green and dentate, some purplish fuscous suffusion before it beyond the cell and a large lunulate red-brown and purplish fuscous patch beyond it before the dentate silvery greyish subterminal line, which has a black point at costa and slight black marks beyond it below apex and at submedian fold; a deep red-brown terminal line; cilia tinged with red-brown and with a brown line through them. Hind wing fuscous brown; a fine greyish line at base of cilia. Underside of both wings fuscous brown; fore wing with the terminal half of costa brownish white with some dark points on costa; hind wing with some brownish white on costa towards apex.

Hab. Assam, Khásis, 3 ♂ type. *Exp.* 30 millim.

6586. **Asinduma elæota**, n. sp. (Plate CLXXXII. fig. 5.)

♀. Head red-brown mixed with grey-white; thorax olive-yellow mixed with some leaden grey; pectus white; legs white mixed with brown; abdomen grey-brown. Fore wing olive-yellow, the terminal area suffused with red-brown except towards tornus; the base of costal and inner areas leaden grey; subbasal line represented by a slight olive striga from costa; antemedial line olive, oblique, defined on inner side by leaden grey from costa to median nervure and

on outer by the medial area being leaden grey from costa to submedian fold; an olive-yellow discoidal lunule with two slight black points on it; postmedial line indistinct, dark defined on outer side by olive-yellow, bent outwards below costa, then erect, an oblique olive patch beyond it on costal area; an indistinct minutely dentate silvery grey subterminal line. Hind wing fuscous brown.

Hab. Travancore, Pirmád (*Mrs. Imray*), 1 ♀ type. *Exp.* 28 millim.

Genus SELEPA.

Type.

Selepa, Moore, Lep. E. I. Co. p. 353 (1858) .... *celtis.*

Proboscis fully developed; palpi downcurved, extending about the length of head and fringed with hair above and below; frons smooth; eyes large, round; antennæ of male almost simple; thorax clothed almost entirely with scales and without crests; fore tibiæ fringed on both sides with long hair, the tarsal joints with slight tufts of scales, the mid and hind tibiæ slightly fringed with hair; abdomen with dorsal crests on basal segments. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a short areole; 11 from cell. Hind wing with veins 3 and 5 from close to angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

Sect. I. Hind wing of male on underside with large patch of blackish androconia in submedian interspace from near base to near termen, followed by a small patch of rough hairy rufous scales on termen.

6587. Selepa stigmatophora.

Plotheia stigmatophora, Hmpsn. Trans. Ent. Soc. 1895, p. 305; id. Moths Ind. iv. p. 524.

♂. Head and thorax fuscous brown tinged with grey; abdomen pale grey-brown; pectus and ventral surface of abdomen whitish. Fore wing cupreous brown tinged with grey; a curved

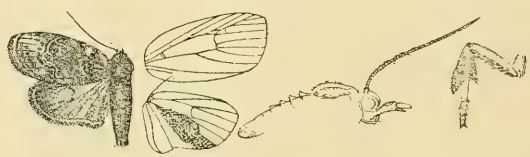


Fig. 104.—*Selepa stigmatophora*, ♂. ½.

sinuous brown antemedial line; a point of raised scales in middle of cell and small discoidal tuft; postmedial line double, obliquely excurved from costa to vein 4, then incurved and minutely waved below submedian fold, a faint waved subterminal line and traces of a terminal series of dark points. Hind wing white tinged with

brown, the cilia white, brownish at base ; the underside white with some brown irroration on costal area.

Hab. Sikhim (*Dudgeon*), 1 ♂ type. *Exp.* 22 millim.

Sect. II. Hind wing of male normal.

A. Fore wing with the postmedial line dentate from below costa to vein 4.
  a. Fore wing with white patch on middle of costa ..... *nigralba.*
  b. Fore wing without white patch on middle of costa.
    a^1. Fore wing with the postmedial line defined on each side by white ..... *leucograpta.*
    b^1. Fore wing with the postmedial line not defined by white... ..... *violescens.*
B. Fore wing with the postmedial line dentate below veins 6, 5, 4 ..... *rufescens.*
C. Fore wing with the postmedial line dentate at veins 4, 3 . *ferrofusa.*
D. Fore wing with the postmedial line not dentate.
  a. Fore wing with the postmedial line slightly oblique from below costa to vein 4.
    a^1. Fore wing with the postmedial line angled outwards at vein 1.
      a^2. Fore wing with the postmedial line crossed by fine black streaks above and below vein 2 ..... *celtis.*
      b^2. Fore wing with the postmedial line not crossed by fine black streaks above and below vein 2.
        a^3. Fore wing suffused with red-brown ; hind wing white ..... *ænescens.*
        b^3. Fore wing not tinged with red-brown ; hind wing grey ..... *plumbeata.*
    b^1. Fore wing with the postmedial line not angled outwards at vein 1.
      a^2. Fore wing with wedge-shaped blue-grey patch on costal area beyond postmedial line ..... *transvalica.*
      b^2. Fore wing without wedge-shaped blue-grey patch on costal area beyond postmedial line.
        a^3. Fore wing grey, the medial area suffused with brown ..... *rhythmopis.*
        b^3. Fore wing grey tinged with fuscous brown ..... *geræa.*
        c^3. Fore wing wholly suffused with red-brown ..... *cumasia.*
  b. Fore wing with the postmedial line excurved from below costa to vein 4.
    a^1. Fore wing with black streak in submedian fold from base to postmedial line.
      a^2. Fore wing with black streak in discal fold from middle of cell to termen..... *rabdota.*
      b^2. Fore wing without black streak in discal fold.
        a^3. Fore wing with the postmedial line bent outwards below costa ..... *discigera.*
        b^3. Fore wing with the postmedial line very oblique from costa to vein 6..... *leucogonia.*
    b^1. Fore wing without black streak in submedian fold.
      a^2. Fore wing suffused with red-brown and leaden grey.
        a^3. Fore wing with tufts of raised scales on the ante- and postmedial lines ..... *circulella.*
        b^3. Fore wing without tufts of raised scales on the ante- and postmedial lines..... *molybdea.*
      b^2. Fore wing grey slightly tinged with brown.
        a^3. Fore wing without broad fuscous medial shade . *docilis.*
        b^3. Fore wing with broad fuscous medial shade..... *nephelozona.*

6588. Selepa nigralba. (Plate CLXXXII. fig. 6.)

Plotheia nigralba, Hmpsn. Trans. Ent. Soc. 1895, p. 305; id. Moths Ind. iv. p. 525.

Head and thorax black-brown; palpi whitish below; abdomen grey-brown. Fore wing black-brown; antemedial line indistinct, blackish, faintly defined on inner side by whitish, slightly bent outwards between subcostal nervure and vein 1; a white point in middle of cell and a discoidal striga of raised black scales; a large white patch on middle of costa intersected by the blackish postmedial line which arises at middle of costa, strongly bent outwards below costa, then slightly defined by white on outer side, angled inwards at vein 7 and discal fold and outwards at vein 6, below vein 3 bent inwards to below end of cell, then again excurved; a diffused oblique white patch from apex intersected by the slight dark subterminal line, which is minutely dentate towards costa and somewhat excurved below vein 7 and at middle; a series of white striæ just before termen. Hind wing blackish brown, the cilia with a fine whitish line at base and whitish tips.

Hab. Bhután (*Dudgeon*), 1 ♀ type; Singapore (*Ridley*), 1 ♂, 1 ♀. *Exp.* 22–26 millim.

6589. Selepa leucograpta, n. sp. (Plate CLXXXII. fig. 7.)

♀. Head, thorax, and abdomen greyish brown; palpi white below; pectus and ventral surface of abdomen ochreous white. Fore wing whitish suffused with leaden grey and some brown; antemedial line formed by black scales slightly defined on inner side by whitish, oblique from costa to above vein 1; a point of raised black scales at middle of cell and discoidal striga; postmedial line indistinctly double, filled in with white and defined on outer side by white except towards costa, obliquely bent outwards below costa, then the outer line minutely dentate to vein 3, then incurved; an oblique white shade from apical part of costa to the postmedial line; subterminal line defined on inner side by brown suffusion and by points of raised black scales towards inner margin, excurved below vein 7 and at middle; a series of minute white striæ just before termen. Hind wing fuscous brown, the cilia with fine white line at base and white tips.

Hab. S. Nigeria, Lagos (*Dudgeon*), 1 ♀ type. *Exp.* 22 millim.

6590. Selepa violescens, n. sp. (Plate CLXXXII. fig. 8.)

♂. Head and thorax brown mixed with grey; palpi below and pectus whitish; abdomen whitish dorsally tinged with brown. Fore wing violaceous whitish suffused with red-brown; antemedial line indistinct, dark defined on inner side by whitish, oblique to submedian fold and angled outwards above vein 1; postmedial line fine, dark defined on each side by grey-white, arising at middle of

costa, strongly bent outwards below costa, then minutely waved, oblique below vein 4; faint traces of a curved subterminal line; a terminal series of brown points defined by greyish. Hind wing whitish tinged with red-brown.

Hab. Gambia, Bathurst (*Sir G. Carter*), 1 ♂ type. *Exp.* 22 millim.

6591. Selepa rufescens, n. sp. (Plate CLXXXII. fig. 9.)

♀. Head, thorax, and abdomen ochreous white tinged with pale purplish red-brown; palpi below, pectus, hind legs and ventral surface of abdomen ochreous white. Fore wing ochreous white suffused with red-brown and tinged with purplish grey, the veins with slight dark streaks, the medial and postmedial costal areas whiter; antemedial line red-brown defined on inner side by ochreous white with leaden grey before it, acutely angled outwards below costa, in submedian fold, and above inner margin; a point of raised black scales at middle of cell and a discoidal striga, a red-brown streak between them; postmedial line double, red-brown, arising at costa from just beyond antemedial line, strongly bent outwards below costa, then excurved to vein 4, the outer line being dentate below veins 6, 5, 4, then incurved, defined on outer side by yellowish white followed by leaden grey; subterminal line indistinct, whitish with slight blackish dentate marks before it below veins 7, 6, 4, a curved black streak from vein 4 to postmedial line below vein 3 and two slight streaks between submedian fold and vein 1; a brown terminal line and fine whitish line at base of cilia. Hind wing ochreous white, the terminal half suffused with brown; cilia with yellowish line at base and whitish tips.

Hab. Natal, Durban (*Bell-Marley*), 1 ♀ type. *Exp.* 30 millim.

6592. Selepa ferrofusa. (Plate CLXXXII. fig. 10.)

Plotheia ferrofusa, Hmpsn. A. M. N. H. (7) xvi. p. 581 (1905).

♂. Head and thorax pale grey, the sides of palpi, head and thorax more or less deeply tinged with ferruginous; fore legs tinged with ferruginous in front; abdomen pale grey slightly tinged with brown on dorsum. Fore wing pale grey, the basal inner area, medial area except at inner margin, postmedial area at middle, and terminal area except at apex and tornus suffused with bright ferruginous; a small fuscous spot below costa near base and subbasal spots below costa and in cell; a double slightly waved antemedial line, strongly excurved from costa to submedian fold, then angled inwards on vein 1; a small tuft of whitish scales in middle of cell and small black discoidal tuft; postmedial line double, arising near antemedial line, very strongly bent outwards below costa, oblique to veins 4, 3, where it is minutely dentate, then bent inwards to vein 2 and erect to inner margin; subterminal line whitish defined

by dark brown on inner side, minutely waved, excurved below costa and at middle; a fine blackish terminal line slightly defined by grey on inner side. Hind wing semihyaline white, the termen narrowly reddish brown.

Hab. Madras, Belgaum (*Watson*), 1 ♂; Ceylon, Colombo (*Green*), 1 ♂ type. *Exp.* 20 millim.

6593. Selepa celtis.

Selepa celtis, Moore, Lep. E. I. Co. p. 353, pl. 16. ff. 8, 8a (1858); id. Lep. Ceyl. iii. p. 103, pl. 158. f. 5; Hmpsn. Moths Ind. ii. p. 370.
Subrita curviferella, Wlk. xxxv. 1745 (1866).

Head and thorax pale grey-brown; fore tarsi ringed with blackish; abdomen whitish tinged with brown. Fore wing grey suffused with red-brown, an oblique purplish fuscous shade from postmedial part of inner margin where it extends from antemedial line to tornus; antemedial line indistinct, curved, a ridge of black scales beyond it from subcostal nervure to vein 1; a small tuft of black scales at middle of cell and discoidal bar-shaped tuft; postmedial line double, bent outwards below costa, oblique to vein 4, then incurved, below submedian fold waved and with two tufts of raised

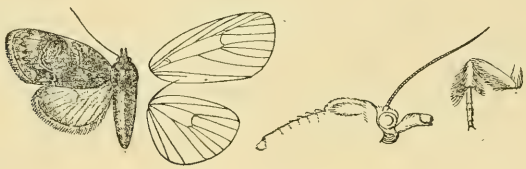


Fig. 105.—*Selepa celtis*, ♂. ¾.

scales on it, crossed by fine black streaks above and below vein 2; subterminal line whitish defined on inner side by fuscous brown except towards costa, minutely waved, incurved below vein 3 and with tuft of raised scales on it above tornus; a fine black terminal line. Hind wing whitish, the terminal area tinged with brown.

Ab. 1. Fore wing with diffused black patch in, below, and beyond lower end of cell.

Hab. N. India (*Hearsey*), 2 ♀ type; Punjab, Almorah (*Boys*), 1 ♀ type *curviferella*, Manpuri, 1 ♀; Assam, Nágas; Bengal (*Russell*), 1 ♀, Calcutta, 3 ♂, 1 ♀; Bombay (*Swinhoe*), 2 ♀, Mhow (*Swinhoe*), 2 ♀; Madras, Nilgiris (*Hampson*), 1 ♀; Ceylon, 2 ♀; Philippines, Luzon; Java (*Horsfield*), 1 ♂, 2 ♀; Queensland, Townsville (*Dodd*), 1 ♀. *Exp.* 20–24 millim.

Larva. Semper, Reise Phil., Schmett. ii. p. 529, pl. Q, ff. 12–14.

Yellow; head black; dorsal black patches on 5th, 10th, and 11th somites; a lateral reddish line with series of black spots; hairs long and sparse; forms a cocoon covered with fæces.

6594. Selepa ænescens. (Plate CLXXXII. fig. 11.)

Selepa ænescens, Moore, Lep. Atk. p. 288 (1888); Hmpsn. Moths Ind. ii. p. 370.

Head, thorax, and abdomen grey suffused with fuscous brown; palpi at base, pectus and ventral surface of abdomen whitish. Fore wing purplish grey suffused with fuscous and in parts with red-brown; antemedial line formed by raised blackish scales, oblique from costa to submedian fold and angled inwards at vein 1; a tuft of raised blackish scales at middle of cell and a curved discoidal striga; postmedial line blackish, arising at middle of costa, strongly bent outwards below costa, then nearly straight and erect to vein 3, angled inwards below vein 2 and outwards at submedian fold and vein 1; subterminal line greyish defined on inner side by brown, almost obsolete towards costa, then waved, bent inwards at vein 2 and with three tufts of raised scales on it towards tornus. Hind wing white, the terminal area suffused with brown.

Hab. Sikhim; Bhután (*Dudgeon*), 1 ♀; Madras, Nilgiris, 1 ♀; Ceylon (*Green*), 1 ♂, 1 ♀; Br. N. Guinea, Port Moresby, 1 ♀. *Exp.* 24–30 millim.

6595. Selepa plumbeata, n. sp. (Plate CLXXXII. fig. 12.)

Head and thorax purplish grey tinged with brown; abdomen pale grey; palpi below, pectus, mid and hind legs and ventral surface of abdomen white. Fore wing purplish grey slightly tinged with brown and with a leaden gloss; antemedial line blackish, slightly bent outwards from subcostal nervure to above vein 1; a faint elliptical discoidal annulus with ridge of raised blackish scales in centre; postmedial line double, the inner line indistinct, bent outwards below costa, then excurved to vein 3 with a slight curve inwards at discal fold, below vein 3 angled inwards to below end of cell, then minutely dentate; subterminal line faintly defined by dark brown on inner side and slightly dentate, bent inwards at vein 2 and with tuft of dark scales above tornus; a terminal series of black striæ. Hind wing pale grey, somewhat darker towards termen; cilia whitish at tips.

Hab. Ceylon, Kegale (*Alston*), 1 ♂ type; Up. Burma, Kinyua (*Bingham*), 1 ♂, 1 ♀. *Exp.* 20 millim.

6596. Selepa transvalica, n. sp. (Plate CLXXXII. fig. 13.)

♀. Head, tegulæ, and patagia pale brownish mixed with some black; thorax grey suffused with blackish; pectus and abdomen ochreous white, the last dorsally tinged with brown, the crest on 2nd segment blackish. Fore wing with the costal half grey-white clouded with fuscous, the inner half ochreous suffused with red-brown; some black on inner margin towards base; antemedial line formed of raised black and brown scales, somewhat oblique to subcostal nervure, then erect; an oblique blackish shade from costa just beyond postmedial line to antemedial line at median nervure;

a point of raised black scales defined by white at middle of cell and a black discoidal lunule on a round red-brown spot defined by greyish; postmedial line double, black-brown, the inner line arising from costa near the antemedial line, bent outwards below costa, then somewhat oblique to vein 3, then incurved; subterminal line defined on inner side by a slight brown shade, excurved below vein 7 and at middle, a deep red-brown patch beyond it at submedian fold; a terminal series of blackish striæ; cilia with blackish patch towards tornus. Hind wing semihyaline white, the veins towards termen and the termen fuscous brown.

♂. Fore wing with the costal and inner areas lilacine grey with some black irroration and streaks, the area from below costa to submedian fold red-brown with a whitish patch at middle of terminal area, a strong black streak in submedian fold and slighter streaks on veins 7, 6, 2; the lines and stigmata hardly traceable; hind wing white with a fine dark terminal line.

Hab. Transvaal, White R. (*Cooke*), 1 ♂, 1 ♀ type. *Exp.* 28 millim.

6597. Selepa rhythmopis. (Plate CLXXXII. fig. 14.)

Plotheia rhythmopis, Turner, Pr. Linn. Soc. N. S. W. xxvii. p. 91 (1902).

Head and thorax grey tinged with brown; pectus and abdomen whitish. Fore wing grey slightly tinged with brown and irrorated with fuscous; antemedial line double, the inner line indistinct, the outer strong, black, excurved from subcostal nervure to submedian fold; the whole medial area suffused with brown, the costal area remaining grey with a black spot on it to near the postmedial line; claviform obscure, black; orbicular and reniform represented by tufts of black scales; the postmedial line double, the inner line indistinct and strongly bent outwards below costa, the outer strong, black, sinuous, excurved from costa to vein 3, then incurved. Hind wing semihyaline whitish tinged with brown especially on the veins and towards termen.

Hab. Queensland, Townsville (*Dodd*), 1 ♀, Brisbane, type † in Coll. Turner. *Exp.* 26 millim.

6598. Selepa geræa. (Plate CLXXXII. fig. 15.)

Sarotricha demiota, Meyr. Trans. Ent. Soc. 1889, p. 464 (♀); Kirby, Cat. Lep. Het. p. 370.
Plotheia geræa, Hmpsn. A. M. N. H. (7) xvi. p. 582 (1905).

Head, thorax, and abdomen grey slightly tinged with fuscous; tegulæ with fine oblique dark streaks, patagia with black upper edge and fine oblique streak across tips. Fore wing grey slightly suffused with fuscous brown and finely irrorated with black; obliquely placed subbasal fuscous points in and below cell; an indistinct double antemedial line, slightly angled inwards on median nervure and oblique below submedian fold; a small black discoidal bar; postmedial line rather indistinct, double, oblique from costa

to vein 3 where it is bent inwards to near angle of cell, then oblique and slightly waved to inner margin; an indistinct diffused brown subterminal line, excurved below costa and at middle; a terminal series of slight dark striæ. Hind wing whitish tinged with brown especially on terminal area.

Hab. New Guinea, Port Moresby (*Kowald*), ♂, ♀ in Coll. Meyrick; Queensland, Townsville (*Dodd*), 2 ♂ type. *Exp.* 24 millim.

6599. Selepa cumasia, n. sp. (Plate CLXXXII. fig. 16.)

♂. Head and thorax red-brown mixed with greyish, the metathorax with some blackish scales; abdomen grey tinged with brown; pectus and ventral surface of abdomen ochreous white. Fore wing purplish grey suffused with red-brown; antemedial line double, the inner line purplish, the outer red-brown, excurved below costa and submedian fold; small tufts of black scales at middle of cell and on discocellulars, the former with whitish point on its inner side; postmedial line double, the inner line brown, the outer silvery purplish, excurved from costa to vein 6, slightly incurved at discal fold, excurved between veins 5 and 3, then incurved; subterminal line whitish defined on inner side by brown, excurved below vein 7 and at middle and slightly angled inwards at vein 2; a black terminal line and fine whitish line at base of cilia. Hind wing pale brown, the cilia with a fine whitish line at base; the underside greyish.

Hab. Gold Coast, Kumasi (*Whiteside*), 2 ♂ type; S. Nigeria, Itu (*Farquhar*), 1 ♂. *Exp.* 24 millim.

6600. Selepa rabdota.

Clettharra rabdota, Hmpsn. Ill. Het. B.M. viii. p. 88, pl. 146. f. 4 (1891); id. Moths Ind. ii. p. 371.

♀. Head and thorax whitish tinged with red-brown and mixed with dark brown; palpi white below; abdomen whitish tinged with brown. Fore wing whitish tinged with red-brown and in parts slightly suffused with dark brown; a black streak in submedian fold to postmedial line; a minute black streak in cell near base and some blackish scales on inner margin; traces of a pale oblique antemedial line; a black streak in discal fold from middle of cell to termen, an oblique streak from upper angle to apex, streaks on veins 6 and 5 and bases of veins 4, 3, 2; postmedial line indistinct, bent outwards below costa, excurved to vein 4, then more distinct, blackish slightly defined on outer side by whitish, and incurved; a blackish patch in terminal part of submedian interspace and a terminal series of black points. Hind wing semihyaline white, the termen slightly tinged with ochreous brown, a terminal series of minute black points,

Hab. Madras, Nilgiris (*Hampson*), 1 ♀ type; Ceylon, Ukuwella (*Mackwood*), 1 ♀. *Exp.* 24–28 millim.

6601. Selepa discigera.

Gadirtha discigera, Wlk. Journ. Linn. Soc., Zool. vii. p. 163 (1864); Swinh. Cat. Het. Mus. Oxon. ii. p. 76, pl. 2. f. 14.
Selepa strigifera, Moore, Lep. Ceyl. iii. p. 103, pl. 158. ff. 3, 3 *a* (1885); Hmpsn. Moths Ind. ii. p. 370.

Head, thorax, and abdomen grey tinged with red-brown, the tegulæ and upper edge of patagia with dark brown stripes; palpi below, pectus, mid and hind legs, and ventral surface of abdomen grey-white. Fore wing greyish suffused with brown and glossed with purple, the veins with slight dark streaks, the submedian fold pale with a black streak on it; antemedial line indistinct, oblique and slightly sinuous to vein 1, then bent inwards; an oblique discoidal bar of raised scales; postmedial line double, the inner line indistinct, strongly bent outwards below costa, excurved to vein 3, then bent inwards, sinuous with tufts of raised scales on it to inner margin, crossed just above vein 2 by a blackish streak; subterminal line defined on inner side by dark brown, oblique towards costa, then crenulate. Hind wing whitish tinged with brown, or wholly suffused with brown.

Ab. 1. Fore wing with diffused black patch in and beyond lower angle of cell to postmedial line.

Ab. 2. Fore wing with diffused black beyond antemedial line towards costa, and thence through upper part of cell to postmedial line.

Ab. 3. Head, thorax, and fore wing pale grey-brown.

Hab. Sikhim (*Möller*), 1 ♀; Bombay, Kanara, Karwar (*T. R. Bell*), 1 ♂, 1 ♀; Ceylon (*Lindesay*), 1 ♀, Pundaloya (*Green*), 2 ♂, 2 ♀ type *strigifera*; Lr. Burma, Thayetmyo (*Watson*), 1 ♀; Singapore (*Ridley*), 1 ♂; Borneo, Sarawak (*Wallace*), type † in Mus. Oxon; Louisiades, St. Aignan (*Meek*), 2 ♀; Queensland, Townsville (*Dodd*), 1 ♂. *Exp.* 22–28 millim.

Larva. Brownish ochreous with a dorsal series of slender erect black hairs which are very long and with spatulate ends at anterior and posterior extremities, lateral hairs white; a subdorsal black-spotted green band from 5th to 10th somites; dorsal black spots on 2nd to 5th and 11th somites.

6602. Selepa leucogonia. (Plate CLXXXII. fig. 17.)

Plotheia leucogonia, Hmpsn. A. M. N. H. (7) xvi. p. 581 (1905).

♀. Head and thorax grey slightly tinged with red-brown; patagia with brown line near tips; abdomen grey, the crests dark at tips. Fore wing with the basal and inner areas grey slightly tinged with red-brown, the rest of wing ochreous suffused with rufous, the grey area defined by a black-brown line from costa to submedian fold in which it forms a streak to postmedial line, emitting a slight striga from its lower edge before middle; a slight oblique red-brown discoidal bar; postmedial line indistinctly double, very oblique from

costa to vein 6, then excurved, slightly angled inwards in discal fold, at vein 2 retracted to near cell, slightly angled outwards at submedian fold and excurved to inner margin; subterminal line represented by some diffused rufous, excurved at vein 7 and middle: a small triangular white mark from termen to postmedial line at vein 2; a tuft of dark scales above tornus; a terminal series of black striæ; cilia rufous. Hind wing white, the terminal area slightly tinged with brown; the underside with the costal area slightly tinged with red-brown.

Ab. 1. Head, thorax, and abdomen browner; fore wing with the triangular white mark rather larger; hind wing wholly suffused with dark brown.

Ab. 2. Fore wing without triangular white mark; hind wing whitish suffused with pale brown.

Hab. Sierra Leone (*Clements*), 1 ♀; Gambia, Bathurst (*Sir G. Carter*), 1 ♀; Br. E. Africa, Teita (*Jackson*), 1 ♀ type. *Exp.* 16–20 millim.

6603. **Selepa circulella.** (Plate CLXXXII. fig. 18.)

Subrita circulella, Wlk. xxxv. 1747 (1866).
Sarotricha demiota, Meyr. Trans. Ent. Soc. 1889, pp. 300, 464 (♂).

♀. Head and thorax grey mixed with brown; palpi at base, pectus and abdomen whitish, the last with the crests blackish. Fore wing purplish grey mixed with some red-brown and whitish and with patches of white on costal area at middle and apex; some blackish scales on inner margin towards base; an oblique antemedial ridge of raised brown and blackish scales from costa to vein 1; a point of raised black scales in middle of cell and discoidal striga on a brown discoidal spot; a blackish streak on base of vein 3; postmedial line double, arising from costa near antemedial line, strongly bent outwards below costa, excurved to vein 3, then bent inwards and waved to inner margin, crossed by slight black streaks above and below vein 2 and with tufts of raised scales on it above and below vein 1; subterminal line obselete towards costa, then defined on inner side by black suffusion, waved, and with small white mark beyond it at vein 2; a maculate blackish terminal line slightly defined on inner side by whitish. Hind wing whitish tinged with brown especially on terminal area.

♂. Hind wing with tuft of blackish hair at middle of cilia of inner margin.

Hab. Celebes, Makian (*Wallace*), 1 ♀ type; New Guinea (*Sayer*), type† ♂ *demiota* in Coll. Meyrick. *Exp.* 28 millim.

6604. **Selepa molybdea**, n. sp. (Plate CLXXXII. fig. 19.)

Head, thorax, and abdomen purplish grey tinged with brown; palpi below, pectus, mid and hind legs and ventral surface of abdomen whitish. Fore wing ochreous suffused with red-brown and

glossed with purple-grey, the medial area rather browner; antemedial line black-brown, slightly bent outwards from subcostal nervure to vein 1; a whitish point defined by black and small black discoidal tuft; postmedial line double, bent outwards below costa, excurved to vein 3, then incurved and minutely waved; subterminal line indistinct, red-brown, oblique towards costa, then curved; a fine black terminal line. Hind wing whitish suffused with brown, the cilia whiter.

Ab. 1. Fore wing with diffused black spot in middle of cell and discoidal patch.

Ab. 2. Fore wing with triangular white patch on medial part of costa, a white discoidal annulus and wedge-shaped white patch on apical part of costal area, an oblique black streak beyond upper angle of cell.

Hab. Singapore (*Ridley*), 3 ♂, 2 ♀ type. *Exp.* 18–20 millim.

6605. Selepa docilis. (Plate CLXXXII. fig. 20.)

Selepa docilis, Butl. P. Z. S. 1881, p. 619; Hmpsn. Moths Ind. ii. p. 370. *Plotheia canofusa*, Hmpsn. A. M. N. H. (7) xvi. p. 580 (1905).

Head, thorax, and abdomen grey slightly tinged with brown; palpi below, pectus and ventral surface of abdomen white. Fore wing grey faintly tinged with brown and irrorated with a few black scales; a very indistinct double waved brownish antemedial line, angled inwards at vein 1; a minute black point in middle of cell and two minute discoidal points; postmedial line blackish faintly defined on each side by whitish, excurved from below costa to vein 4, then incurved; subterminal line very indistinct, brownish, oblique towards costa and slightly incurved at submedian fold. Hind wing semihyaline white, the termen slightly tinged with brown.

Ab. 1. The type: fore wing with some ill-defined small black spots on basal area and before and beyond antemedial line and slight black streaks on terminal area before and beyond subterminal line.

Ab. 2. Fore wing with diffused black patches below and beyond end of cell.—Ceylon.

Hab. N. Nigeria, Minna (*Macfie*), 1 ♀, Zungeru (*Macfie*), 2 ♀, Borgu, Yelwa L. (*Migeod*), 1 ♂; Soudan, Port Soudan (*Mrs. Waterfield*), 2 ♀; Natal, Durban (*Quekett*), 1 ♀; Cape Colony, Annshaw (*Miss F. Barrett*), 1 ♀ type *canofusa*; Punjab, Manpuri, 1 ♀, Moghal Serai (*Betton*), 1 ♀; Sind, Karáchi (*Swinhoe*), 3 ♂, 3 ♀ type; Bombay, 1 ♂, Kutch, 1 ♀; Ceylon, Hambantota (*Pole*), 4 ♀. *Exp.* 22–26 millim.

6606. Selepa nephelozona. (Plate CLXXXII. fig. 21.)

Plotheia nephelozona, Hmpsn. A. M. N. H. (7) xvi. p. 580 (1905).

♀. Head and thorax grey tinged with pale red-brown; abdomen whitish. Fore wing grey tinged with pale red-brown and slightly

irrorated with black; a broad diffused irregular medial fuscous band expanding on costa towards apex and on inner margin towards base, with a very small elongate tuft of raised scales on it in middle of cell; two minute black discoidal points; faint traces of a subterminal line; a very slight brown shade on apical part of terminal area; a terminal series of minute black points. Hind wing semihyaline white; the termen slightly tinged with brown towards apex and with some slight points at middle; the underside with the costal area slightly tinged with brown.

Hab. Br. E. Africa, Kikuyu, Nairobi plains (*Crawshay*), 1 ♀ type. *Exp.* 30 millim.

Genus **PLOTHEIA.**

	Type.
Plotheia, Wlk. xiii. 1108 (1857)	*decrescens.*
Egelesta, Wlk. xv. 1747 (1858)	*decrescens.*
Galleriomorpha, Feld. Wien. Ent. Mon. vi. p. 37, note (1862).	*decrescens.*
Othora, Wlk. xxxiii. 902 (1865)	*decrescens.*

Proboscis fully developed; palpi with the 2nd joint obliquely upturned to above vertex of head and fringed with long scales behind towards extremity, the 3rd long and porrect; frons smooth, with tuft of hair above; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; fore femora and tibiæ fringed with long hair, the tarsal joints with tufts of scales, the mid and hind tibiæ moderately fringed with hair; abdomen with dorsal series of crests. Fore wing with the apex rounded, the termen evenly curved, crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

6607. **Plotheia decrescens.**

Gadirtha decrescens, Wlk. xiii. 1104 (1857); Hmpsn. Moths Ind. ii. p. 369.
Plotheia frontalis, Wlk. xiii. 1109 (1857); Hmpsn. Ill. Het. B.M. ix. p. 106, pl. 164. ff. 1–32.
Egelesta rudivitta, Wlk. xv. 1748 (1858).
Galleriomorpha lichenoides, Nietner, Coffee Tree and its enemies p. 13 (1861); Feld. Wien. Ent. Mon. vi. p. 38 (1862).
Gadirtha spurcata, Wlk. xxxiii. 896 (1865).
Gadirtha guttulosa, Wlk. xxxiii. 897 (1865).
Othora velata, Wlk. xxxiii. 902 (1865).
Othora albotecta, Wlk. xxxiii. 903 (1865).
Othora cinerascens, Wlk. xxxiii. 903 (1865).
Othora canescens, Wlk. xxxiii. 904 (1865).
Othora onusta, Wlk. xxxiii. 905 (1865).
Othora subglauca, Wlk. xxxiii. 905 (1865).
Othora signata, Wlk. xxxiii. 906 (1865).
Othora plagiata, Wlk. xxxiii. 907 (1865).
Othora albivitta, Wlk. xxxiii. 908 (1865).
Othora lata, Wlk. xxxiii. 909 (1865).
Othora concisa, Wlk. xxxiii. 910 (1865).
Othora basifascia, Wlk. xxxiii. 911 (1865).
Othora imprimens, Wlk. xxxiii. 911 (1865).
Plotheia lativitta, Moore, Lep. Ceyl. iii. p. 106, pl. 157. f. 11 (1885).
Plotheia griseovirens, Moore. Lep. Ceyl. iii. p. 108, pl. 158. f. 2 (1885).

Head and thorax olive-greyish, pale reddish brown mixed with black, or blackish; palpi black at sides towards base; abdomen

greyish suffused with fuscous, a dorsal series of triangular greyish patches defined at sides by black, the crests black at tips; pectus and ventral surface of abdomen whitish, the legs with blackish mixed. Fore wing olive-greyish, pale red-brown irrorated with black, or blackish; a slight black streak below base of cell; subbasal line represented by a curved black striga from costa; antemedial line double, slightly angled outwards below costa, then somewhat oblique and waved; medial line slightly angled outwards below costa, then indistinct, oblique, sinuous; reniform large, irregularly rounded, defined by black and with tuft of blackish hair in centre; postmedial line double and oblique from costa to discal fold, then single, somewhat inwardly oblique, strongly incurved in submedian interspace and bent outwards at vein 1; subterminal line slight, whitish defined on inner side by blackish, minutely

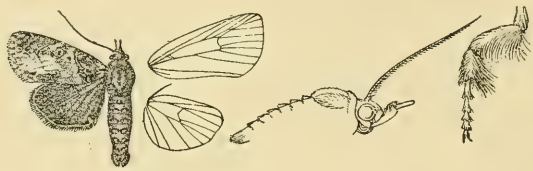


Fig. 106.—*Plotheia decrescens*, ♂. ½.

waved, angled inwards at discal fold, the interspaces beyond it streaked with black from apex to discal fold and towards tornus; a terminal series of slight blackish lunules. Hind wing fuscous brown, the cilia whitish at tips and with blackish patch at tornus; the underside greyish suffused with fuscous brown.

Ab. 1. *signata*. Fore wing with blackish suffusion on basal, apical, and tornal areas.

Ab. 2. *guttulosa*. Fore wing with series of small black spots on the antemedial and postmedial lines and before the subterminal line.

Ab. 3. *spurcata*. Fore wing with black medial patch from costa to median nervure.

Ab. 4. Fore wing suffused with leaden grey, except basal, apical, and tornal areas.

Ab. 5. *lativitta*. Similar but fore wing with the suffusion fuscous black.

Ab. 6. *imprimens*. Fore wing with the inner area suffused with black with whitish patches at middle and tornus and white streak on medial part of inner margin.

Ab. 7. Fore wing with pure white apical patch.

Ab. 8. Fore wing with the inner area pure white to postmedial line and with white apical patch.

Ab. 9. Similar but with series of small black spots on the veins.

Ab. 10. *lichenoides*. Fore wing with oblique ochreous antemedial bands suffused with rufous.

Ab. 11. Similar but with the band whitish.

Ab. 12. *concisa*. Similar but with oblique black line on outer side of the whitish band.

Ab. 13. Fore wing grey with the inner area red-brown.

Ab. 14. Fore wing with the antemedial and postmedial lines defined by white and with white streaks on veins 7, 6, base of vein 3, and on vein 1.

Ab. 15. Similar but the fore wing fuscous black except the base, inner margin and tornal half of terminal area.

Ab. 16. Similar but fore wing wholly suffused with black except a brownish ochreous band before the antemedial line.

Ab. 17. Fore wing with the whole medial area whitish tinged with brown.

Ab. 18. *griseovirens*. Fore wing olive-greyish with some whitish suffusion on medial area.

Ab. 19. Similar but fore wing with patches of white on basal area, medial area below costa and in reniform, at and below apex and at extremity of submedian fold.

Ab. 20. *albivitta*. Fore wing with diffused downcurved white fascia from below costa near base to postmedial line at discal fold.

Ab. 21. Fore wing with broad white medial band, its inner edge oblique, its outer curved and emitting a fascia to middle of tornus.

Ab. 22. *albotecta*. Fore wing white, the base, costal area to middle, and apical area red-brown.

Ab. 23. *rudivitta*. Fore wing with black antemedial band and fascia from it through the cell to near termen.

Ab. 24. Fore wing with oblique blackish band from costa at antemedial line to inner margin towards tornus with streak from it at lower angle of cell to termen at discal fold.

Ab. 25. *lata*. Fore wing with brown streaks in discal fold on terminal area, on bases of veins 3, 2 and a streak on base of vein 1, at middle bent upwards to submedian fold and ending at postmedial line.

Ab. 26. Similar but with the streaks black.

Ab. 27. Fore wing with rufous fascia below median nervure and from lower angle of cell to termen.

Hab. Ceylon (*Lindesay*), 18 ♂, 19 ♀, type and types *plagiata*, *signata*, *subglauca*, *velata*, *onusta*, *guttulosa*, *imprimis*, *frontalis*, *canescens*, *basifascia*, *cinerascens*, *spurcata*, *concisa*, *griseovirens*, *albivitta*, *albotecta*, *rudivitta*, *lativitta*, *lata*, Pundaloya (*Green*), 20 ♂, 21 ♀, Dickoya (*Green*), 1 ♀, Kandy (*Mackwood*), 1 ♂, W. Haputale (*Mackwood*), 1 ♂, Trincomali (*Yerbury*), 4 ♂, 2 ♀. *Exp.* 24–36 millim.

Larva. Food-plant, Coffee (Nietner).

Genus **TATHOTHRIPA**, nov.

Type, *T. continua*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and slenderly scaled, the 3rd long; frons smooth; eyes large, round; antennæ of male almost simple; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen with dorsal crests on

three basal segments, very long in male. Fore wing with the costa highly arched near base, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 and 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

6608. Tathothripa continua.

Ariola continua, Wlk. Journ. Linn. Soc., Zool. vi. p. 196 (1862); Swinh. Cat. Het. Mus. Oxon. ii. p. 76, pl. ii. f. 11.
Ariola includens, Wlk. Journ. Linn. Soc., Zool. vi. p. 197 (1862).
Ariola deflexa, Wlk. Journ. Linn. Soc., Zool. vi. p. 197 (1862); Swinh. Cat. Het. Mus. Oxon. ii. p. 76, pl. ii. f. 20.
Bryophila leucorhiza, Feld. Reis. Nov. pl. 100. f. 12 (1874).

Head and thorax pure white; palpi brown; antennæ and a bar between their bases brown; pectus and legs suffused with brown; abdomen ochreous white, the crests pure white. Fore wing fuscous brown with a greyish tinge, the inner area pure white from base of costa to termen at vein 3, its upper edge with a triangular indentation at middle, then slightly sinuous; small black spots at middle of cell and on discocellulars; postmedial line indistinct, blackish, slightly bent outwards below costa, then minutely dentate, obsolete on the white area, traces of another diffused dentate line beyond

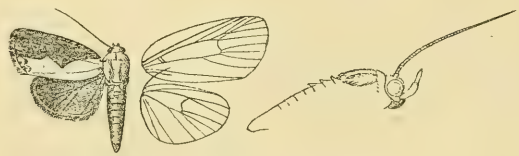


Fig. 107.—*Tathothripa continua*, ♂. ½.

it; subterminal line represented by a series of small dentate black spots, slightly angled outwards below vein 7 and obsolete on the white area; a terminal series of minute black points and fine pale line at base of cilia. Hind wing fuscous brown with a fine whitish line at base of cilia; the underside pale grey, the costal area and terminal area to vein 3 suffused and irrorated with brown.

Ab. 1, ♀. *deflexa*. Fore wing without white on terminal half of inner area, the outer edge of the white obliquly curved from base of costa to middle of inner margin.

Ab. 2, ♀. Similar but fore wing with the white on basal half of inner area enclosing a large elliptical black patch.

Ab. 3, ♂. *includens*. Similar to ab. 2 but fore wing with curved white streak from the outer edge of the white area at vein 1 to tornus emitting a tooth at middle to vein 3 and a streak to termen at vein 3.

Hab. Penang (*Flower*), 1 ♂, 1 ♀; Singapore (*Ridley*, *Wood-Jones*), 16 ♂, 6 ♀; Borneo, Sarawak (*Wallace*, *Meade-Waldo*), 5 ♂, 6 ♀, Kuching (*Shelford*), 1 ♂, 1 ♀. *Exp.* 26–28 millim. Type † and types † *includens* and *deflexa* in Mus. Oxon.

Genus **CRYPTOTHRIPA**, nov.

Type, *C. occulta.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and rather slenderly scaled, the 3rd very long and somewhat dilated at extremity; frons smooth, with tuft of hair above; eyes large, round; antennæ of male with fascicles of long cilia; thorax clothed almost entirely with scales, the metathorax with large depressed crest; fore tibiæ broadly fringed with hair on both sides, the mid and hind tibiæ moderately fringed with hair; abdomen with dorsal series of crests. Fore wing with the apex rounded, the termen evenly curved and slightly crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the long areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with black streak beyond postmedial line in submedian fold ..... *occulta.*
B. Fore wing without black streak beyond postmedial line in submedian fold ..... *polyhymnia.*

6609. **Cryptothripa occulta.**

Selepa occulta, Swinh. P. Z. S. 1885, p. 461, pl. 27. f. 11; Hmpsn. Moths Ind. ii. p. 381.

Head and thorax brown mixed with grey; palpi with the 2nd joint whitish with black streak at sides; pectus whitish; abdomen grey mixed with fuscous brown, the crests blackish. Fore wing reddish brown mixed with whitish and irrorated with a few black scales; an oblique black streak from base of costa along vein 1; antemedial line very indistinct, waved; a tuft of blackish scales in

Fig. 108.—*Cryptothripa occulta*, ♂. ½.

middle of cell; reniform slightly defined by brown, round and with tuft of blackish scales in centre; postmedial line brown, oblique from costa to vein 6, inwardly oblique below vein 2, with a black streak from it to termen in submedian fold, dentate and defined on outer side by white at vein 1, a white patch irrorated with brown beyond it on costal area, extending to apex and dentate at vein 6; a faint minutely waved whitish subterminal line with black streaks beyond it on the veins; a fine black terminal line and whitish line at base of cilia. Hind wing grey suffused with brown, the terminal area fuscous brown, with a patch of blackish scales at tornus, cilia brownish white except at tornus; the underside paler, a dark discoidal lunule and diffused curved postmedial line.

Hab. Bombay, 1 ♂, Poona (*Swinhoe*), 1 ♀ type; Madras, Belgaum (*Watson*), 1 ♂, Gooty (*Campbell*), 1 ♂; Ceylon (*Mackwood*), 1 ♀. *Exp.* 30 millim.

6610. Cryptothripa polyhymnia. (Plate CLXXXII. fig. 22.)

Plotheia polyhymnia, Hmpsn. Ann. S. Afr. Mus. ii. p. 311 (1902).

♀. Head, thorax, and abdomen grey-brown; fore and mid tibiæ and tarsi banded with black; abdomen with the dorsal crest black. Fore wing grey-brown suffused with reddish brown and with some dark irroration; a minute black streak above base of vein 1 and a diffused black fascia above median nervure and from end of cell above discal fold to subterminal line where it is met by an oblique fascia from apex; an indistinct waved antemedial line; an annulus in middle of cell and larger discoidal annulus defined by brown and with tufts of brown scales in centre; postmedial line indistinct, slightly bent outwards below costa, then sinuous, excurved to vein 4, then oblique; the oblique fascia from apex defined by whitish suffusion above; subterminal line indistinct, whitish, waved, incurved below vein 3, the interspaces beyond it with slight black streaks. Hind wing whitish suffused with brownish ochreous.

Ab. 1. Fore wing with the black fascia reduced to a patch on median nervure before end of cell.

Ab. 2. Fore wing with the black fascia absent.

Hab. Natal, Durban (*Leigh*), 3 ♀ type; Cape Colony, Annshaw (*Miss F. Barrett*), 1 ♀. *Exp.* 34–36 millim.

Genus **BRYOTHRIPA**, nov.

Type, *B. miophæa*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and rather slenderly scaled, the 3rd moderate; frons smooth, with tuft of hair above; eyes large, round; antennæ of male almost simple; thorax clothed almost entirely with scales, the metathorax with depressed crest; tibiæ smoothly scaled; abdomen with dorsal series of crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; vein 3 from before angle of cell; 4, 5 from angle, 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

6611. Bryothripa miophæa, n. sp.

Head and thorax sap-green mixed with black; abdomen grey suffused with fuscous, the crests black; pectus, legs, and ventral surface of abdomen ochreous white with a few dark scales. Fore wing sap-green irrorated with black; an oblique black fascia from base of costa to inner margin at vein 1 where it is connected with a diffused fascia above inner margin extending to subterminal line; a subbasal black striga from costa; antemedial line blackish,

oblique, sinuous; a black point at middle of cell and slight discoidal lunule with point at lower angle of cell; postmedial line indistinctly double, slightly bent outwards below costa, excurved to vein 4, then bent inwards to below end of cell and oblique to inner margin, some black and whitish points beyond it on costa;

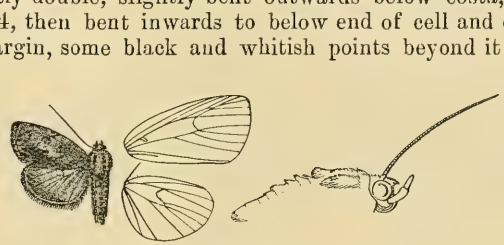


Fig. 109.—*Bryothripa miophæa*, ♂. ½.

subterminal line black defined on outer side by whitish, angled outwards at vein 7 and excurved at middle; a terminal series of slight blackish points; cilia blackish with a fine pale line at base. Hind wing fuscous brown, the cilia with a fine pale line at base; the underside grey suffused with brownish, the terminal area fuscous from apex to submedian fold.

Ab. 1. Thorax with more black; fore wing largely suffused with purplish black, a small black discoidal spot; hind wing more red-brown.—Transvaal.

Hab. S. Nigeria, Lagos (*Dudgeon*), 1 ♂ type; Delagoa Bay (*Mrs. Monteiro*), in Coll. Druce; Transvaal, White R. (*Cooke*), 1 ♂, 1 ♀. *Exp.* 24 millim.

Genus **BRYOPHILOPSIS.**

Type.

Bryophilopsis, Hmpsn. Moths Ind. ii. p. 361 (1894)..... *griseata.*

Proboscis fully developed; palpi upturned, very slender, the 2nd joint hardly reaching to middle of frons, the 3rd short; frons smooth; eyes large, round; antennæ of male with fascicles of long cilia; thorax clothed almost entirely with scales, the mesothorax with slight paired crests, the metathorax with spreading crest; tibiæ smoothly scaled; abdomen with dorsal crests on basal segments. Fore wing with the apex rather produced, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the rather long areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

Sect. I. Fore and mid femora of male with tufts of long hair from base, the former greatly dilated.

6612. **Bryophilopsis orientalis**, n. sp.

♂. Head and thorax white mixed with brown; pectus and legs white tinged with ochreous; abdomen brown with slight segmental lines; the ventral surface white. Fore wing white mixed with brown, the terminal area darker from costa to vein 3, the medial area with a black streak on a red-brown fascia in submedian fold;

subbasal line black, double at costa and ending at submedian fold; antemedial line black, oblique from costa to submedian fold, then erect and obsolescent; reniform with its centre yellowish defined by brown and a white annulus obscured by a brown mark above; postmedial line indistinctly double filled in with white, bent

Fig. 110.—*Bryophilopsis orientalis*, ♂. ½.

outwards below costa and oblique below vein 4; subterminal line white, indistinct on costal half, slightly angled outwards at vein 7 and inwards at discal fold, a black mark beyond it between veins 4, 3; a dark terminal line defined on inner side by white, faintly towards apex. Hind wing brown, whitish towards base, the cilia pale.

Hab. Christmas I. (*Andrews*), 1 ♂ type. *Exp.* 22 millim.

Sect. II. Fore and mid femora of male normal.

A. Fore wing with straight dark streak on medial area at submedian fold.
  a. Fore wing with slight black streaks beyond the subterminal line.
    a^1. Fore wing with the antemedial line not defined on inner side by white ..... *griscata*.
    b^1. Fore wing with the antemedial line defined on inner side by white ..... *rœderi*.
  b. Fore wing without black streaks beyond the subterminal line ..... *lunifera*.
B. Fore wing with downcurved dark mark on medial area at submedian fold.
  a. Fore wing with the basal area not white.
    a^1. Fore wing without rounded black-brown patch beyond the postmedial line.
      a^2. Fore wing with white suffusion on antemedial area.
        a^3. Fore wing without black streak on vein 2 on terminal area.
          a^4. Fore wing without black streak on extremity of median nervure ..... *nesta*.
          b^4. Fore wing with black streak on extremity of median nervure ..... *hamula*.
        b^3. Fore wing with black streak on vein 2 on terminal area ..... *tarachoides*.
      b^2. Fore wing without white suffusion on antemedial area ..... *curvifera*.
    b^1. Fore wing with large rounded black-brown patch beyond the postmedial line ..... *cometes*.
  b. Fore wing with the basal area white ..... *melanoleuca*.

6613. Bryophilopsis griseata.

Bryophilopsis griseata, Hmpsn. Moths Ind. ii. p. 361 (1894).

Head and thorax grey tinged with brown and mixed with fuscous; pectus, legs, and abdomen whitish tinged with brown, the last with the dorsal crest browner. Fore wing grey suffused with brown and irrorated with fuscous, the terminal area slightly browner, the medial area blackish, except beyond the cell, to the submedian fold in which there is a black streak; traces of a double blackish subbasal line, angled outwards at median nervure and

Fig. 111.—*Bryophilopsis griseata*, ♂. ½.

ending at submedian fold; antemedial line black, oblique, sinuous; reniform reddish with whitish annulus, its centre defined by brown; postmedial line indistinctly double, blackish filled in with white, bent outwards below costa, then oblique, sinuous; subterminal line black, defined on outer side by white towards costa and inner margin, excurved below vein 7 and at middle; the terminal area with black streaks in the interspaces below veins 3, 2; a dark terminal line. Hind wing whitish suffused with brown especially on terminal area, the cilia whiter at tips; the underside whitish, the costal and terminal areas slightly irrorated with brown.

Ab. 1. Fore wing without black suffusion on medial area.

Hab. Punjab, Kulu, Sultanpur (*G. Young*), 1 ♀, Simla (*Harford*), 1 ♂, 4 ♀ type. *Exp.* 28–30 millim.

6614. Bryophilopsis rœderi.

Bryophila rœderi, Stndf. Rom. Mém. vi. p. 665, pl. 15. f. 4 (1892); Staud. Cat. Lep. pal. p. 167.

♂. Head and thorax grey mixed with black; palpi white in front; tarsi brown ringed with white; abdomen grey suffused with fuscous, the crests black and white. Fore wing grey irrorated and suffused with brown; a small subbasal wedge-shaped blackish mark below costa; antemedial line black defined by white on inner side and with some brown suffusion beyond its costal half, oblique, slightly angled outwards in submedian fold where there is a black streak from it to postmedial line; reniform defined by fuscous; postmedial line indistinctly double filled in with whitish, angled inwards below costa, then bent outwards, incurved between veins 6 and 4 and below vein 3; subterminal line indistinct, dark, with two slight white points on it below apex and one above tornus,

incurved at discal and submedian folds; a terminal series of slight black points; cilia with whitish line at base. Hind wing semi-hyaline whitish, the veins, costal area, and termen tinged with brown; the underside with the costal area sparsely irrorated with brown.

Exp. Armenia; Syria, Mardin; Mesopotamia, 1 ♂. *Exp.* 24 millim.

6615. **Bryophilopsis lunifera**, n. sp. (Plate CLXXXII. fig. 23.)

♀. Head and thorax white tinged with reddish brown and slightly irrorated with dark brown; abdomen whitish tinged with brown, the crests with dark brown mixed. Fore wing white suffused with red-brown, an obliqne white shade from costa towards apex to lower angle of cell, the terminal area deep red-brown towards apex, the medial area with black-brown lunulate patch from subcostal nervure at middle of cell to postmedial line beyond lower angle of cell, extending to submedian fold; antemedial line very indistinct, oblique from costa to submedian fold, then erect; reniform with diffused white annulus, its centre defined by red-brown; postmedial line white, oblique from below costa to vein 6, then inwardly oblique and sinuous; subterminal line black from the white shade below costa to discal fold, then hardly traceable; a terminal series of black points defined on inner side by white, very slightly on apical half. Hind wing white, the veins, costal and terminal areas tinged with brown.

Hab. S. Nigeria, Old Calabar (*Crompton*), 1 ♀ type. *Exp.* 20 millim.

6616. **Bryophilopsis nesta.** (Plate CLXXXII. fig. 24.)

Asinduma nesta, Bainbrigge-Fletcher, Trans. Linn. Soc., Zool. xiii. p. 273, pl. 17. f. 1 (1910).

♂. Head and thorax white mixed with pale brown; palpi blackish at sides; frons with lateral black points; fore and mid tarsi fuscous ringed with white; abdomen white dorsally tinged with brown. Fore wing white tinged with pale brown, the costal and terminal areas irrorated with fuscous; a minute black streak below base of cell; subbasal line represented by small black spots on costa and in cell; antemedial line black defined on inner side by white and oblique to submedian fold, then white and incurved; the medial area with slight downcurved black streak in submedian fold; reniform with its centre defined by blackish, faintly on outer side and with white annulus on inner side only, rounded; postmedial line double, black filled in with white to submedian fold, then white only, angled outwards below costa, then oblique and slightly sinuous; the costal area prominently white towards apex; subterminal line slight, white defined on inner side by rather diffused black, excurved below vein 7 and angled outwards below vein 4, the area beyond it blackish towards apex; a fine black terminal line slightly defined

on inner side by white. Hind wing semihyaline white, the veins, costal area towards apex, and termen brown.

Hab. SEYCHELLES Is., Cerf I. (*B.-Fletcher*), 1 ♂ type. *Exp.* 22 millim.

*6617. Bryophilopsis hamula.

Erastria hamula, Snell. Tijd. v. Ent. (2) vii. p. 53, pl. iv. f. 14 (1872).

♂. Head, thorax, and abdomen grey-white tinged with brown; antennæ fuscous; pectus and ventral surface of abdomen white. Fore wing white tinged with purplish grey and irrorated with brown, especially on costal area to beyond middle; a subbasal black point in cell; antemedial line defined on inner side by white, black and oblique from costa to submedian fold, then indistinct and angled outwards above inner margin, a black streak beyond it on extremity of median nervure and downcurved streak from it to postmedial line in submedian fold; reniform with undefined white annulus and its centre defined by brownish, round, somewhat angled inwards at middle on inner side; postmedial line brown defined on outer side by white, bent outwards below costa, then oblique, sinuous; an oblique white shade from apex to postmedial line defined below by brown suffusion; subterminal line whitish defined on inner side by black except at costa, angled outwards below vein 7 and at middle; a blackish patch on terminal area below middle and whitish patch at tornus; a terminal series of black points; cilia whitish mixed with brown. Hind wing white tinged with brown, a fine brown terminal line; the underside white, the costal area irrorated with brown except towards base.

Hab. LR. GUINEA (*Waerden*), type † ♂ in Coll. Snellen. *Exp.* 22 millim.

6618. Bryophilopsis tarachoides. (Plate CLXXXII. fig. 25.)

Bryophilopsis tarachoides, Mab. Ann. Soc. Ent. Fr. 1899, p. 729.

♂. Head and thorax grey-white mixed with brown; palpi blackish at sides; antennæ blackish; abdomen white dorsally suffused with brown. Fore wing grey irorated with brown and blackish, some white suffusion on costal half of antemedial area and obliquely from costa towards apex to the reniform; a subbasal black point on costa; antemedial line strong, black, oblique and slightly sinuous to submedian fold, where it is curved outwards to the postmedial line; reniform with white annulus, its centre white tinged with ochreous and defined by brown, elliptical; postmedial line white slightly defined on outer side by black, bent outwards below costa, incurved at discal fold and oblique below vein 3; some diffused black below the oblique white shade from costa towards apex; subterminal line indistinct, dark, excurved below vein 7 and at middle, a black streak beyond it on vein 2; a terminal series of black points. Hind wing semihyaline white, the

termen slightly tinged with brown; the underside with the apex slightly irrorated with black.

Hab. N. Nigeria, Zungeru (*Macfie*), 1 ♀; Br. E. Africa, Kilima-n'jaro, 1 ♂; Madagascar, type † in Coll. Mabille. *Exp.* 24 millim.

6619. **Bryophilopsis curvifera**, n. sp. (Plate CLXXXII. fig. 26.)

♀. Head and thorax grey tinged with brown; palpi, pectus, and legs white slightly tinged with brown; abdomen grey, the dorsal crests fuscous, the ventral surface white. Fore wing grey irrorated with fuscous, some ochreous suffusion below end of cell and obliquely from costa towards apex to the reniform; antemedial line obsolete towards costa and inner margin, black, oblique and sinuous from subcostal nervure to submedian fold, where it is curved outwards to the postmedial line; reniform pale ochreous, its centre defined by brown, elliptical; postmedial line double, blackish filled in with whitish, angled outwards below costa, then oblique, sinuous; some dark brown suffusion from apex below the oblique ochreous shade; subterminal line whitish slightly defined on inner side by blackish, angled outwards below veins 7 and 4, slight black streaks beyond it on veins 8, 7, 6, 4, 3, 2; the terminal area pale tinged with brown; a fine blackish terminal line. Hind wing semihyaline white, the termen tinged with brown; the underside with the apex slightly irrorated with brown.

Hab. S. Nigeria, Olokemeji (*Dudgeon*), 1 ♀ type. *Exp.* 22 millim.

6620. **Bryophilopsis cometes**, n. sp. (Plate CLXXXII. fig. 27.)

♂. Head and thorax grey slightly irrorated with black; antennæ blackish; pectus and legs whitish, the latter suffused with brown; abdomen whitish dorsally tinged with brown, the crests with black mixed. Fore wing greenish grey slightly irrorated with black, the area beyond the antemedial line suffused with brown and ochreous from costa to submedian fold; antemedial line white defined on outer side by black from costa to submedian fold where the black is curved outwards to the postmedial line, slightly angled outwards below costa and excurved above inner margin, the area beyond it brown to submedian fold shading into ochreous below end of cell and obliquely to costa at apex; reniform ochreous, its centre defined by brown, elliptical; postmedial line slight, whitish, slightly angled outwards below costa, then incurved to reniform and excurved below vein 4, a rounded patch of black-brown suffusion beyond it between veins 8 and 3; an indistinct blackish subterminal line excurved below vein 7 and at middle; a series of black points just before termen from apex to vein 4, then a black line defined on inner side by whitish to submedian fold; cilia with series of black striæ at middle. Hind wing semihyaline whitish tinged with brown; the underside ochreous white with some blackish irroration on apical half of costa.

♀. Fore wing with the curved lunulate mark beyond the antemedial line and the patch beyond the postmedial line black-brown shading to brown at termen and forming a comet-shaped patch.

Hab. Gold Coast, Sekondi (*Hamlyn*), 1 ♂ type, Ashanti (*Dudgeon*), 1 ♀. *Exp.* 22 millim.

6621. **Bryophilopsis melanoleuca**, n. sp. (Plate CLXXXII. fig. 28.)

Head and thorax creamy white, the tegulæ suffused with blackish towards tips, the metathorax with some blackish scales before the crest; palpi and frons at sides black; antennæ black except basal joint; fore tibiæ and the tarsi black ringed with white; abdomen brown, the basal segment and ventral surface white. Fore wing creamy white; a black point at base; subbasal line indistinct, with black spot on costa, sinuous, ending at submedian fold, and with small black spot beyond it in cell; antemedial line black, oblique and slightly sinuous to submedian fold, incurved at vein 1, a quadrate patch of black suffusion beyond it from costa to above median nervure; the inner medial area suffused with black, brown and grey, its upper edge curved; reniform with its centre defined by black, hoop-shaped, open below; postmedial line black defined on outer side by white, bent outwards and almost obsolete below costa, then oblique and minutely waved, the area beyond it purple-grey except at costa with some red-brown suffusion beyond the subterminal line at discal and submedian folds; subterminal line white defined on inner side by black except at costa and towards inner margin, excurved below vein 7 and at middle, some black beyond it at apex and middle; a series of black points defined on inner side by white just before termen from apex to vein 2 and a black striga above tornus; cilia with some white at middle. Hind wing semihyaline white, the veins tinged with brown, the termen and cilia except at base tinged with brown to submedian fold; the underside with the costal area irrorated with brown.

Hab. Gold Coast, Kumasi (*Whiteside*), 1 ♂ type; S. Nigeria, Olokemeji (*Dudgeon*), 2 ♂, Sapele (*Sampson*), 1 ♀, Ilesha (*Humphrey*), 1 ♂. *Exp.* 24 millim.

Genus **OCHROTHRIPA**, nov.

Type, *O. leptochroma*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to just above vertex of head and slenderly scaled, the 3rd very long and somewhat dilated at extremity; frons smooth with tuft of hair above; eyes large, round; antennæ of female minutely ciliated; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with depressed crest; fore tibiæ broadly fringed with hair on both sides, the mid and hind tibiæ moderately fringed with hair; abdomen with dorsal crests on basal segments. Fore wing with the apex rounded, the termen evenly curved and slightly crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long narrow areole; 11 from cell. Hind wing with vein 3 from before angle of cell; 5 fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

6622. Ochrothripa leptochroma.

Crioa leptochroma, Turner, Pr. Linn. Soc. N. S. W. xxvii. p. 96 (1902).

♀. Head and thorax white mixed with some pale red-brown and fuscous; palpi blackish at sides towards base; tibiæ banded with fuscous; abdomen pale yellow. Fore wing white tinged in parts with pale red-brown and irrorated with brown, the veins of terminal half with slight dark streaks; antemedial line indistinct, brown, strongly excurved below median nervure; a point of raised dark scales in middle of cell and discoidal tuft with curved line before it forming part of a discoidal annulus; medial line very indistinct, strongly excurved round end of cell; postmedial line indistinctly double, bent outwards below costa, then minutely waved, oblique to discal fold, then inwardly oblique, the costal edge

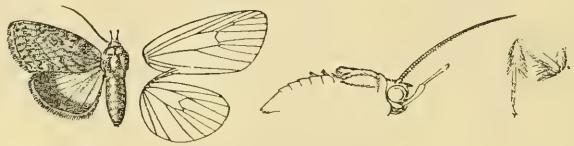


Fig. 112.—*Ochrothripa leptochroma*, ♀. ½.

beyond it brown with some white points on it; subterminal line indistinct, white, waved, defined on inner side by a series of rufous spots. Hind wing pale yellow with terminal brown band, broad at costa, narrowing to tornus, with white and brown points just before it at vein 1; cilia yellowish.

Hab. Queensland, Brisbane (*Lucas*), 1 ♀, Gympie (*Turner*), 1 ♀. *Exp.* 30 millim. Type † ♀ in Coll. Turner.

Genus **PHÆOTHRIPA**, nov.

Type, *P. morena*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and slightly fringed with hair behind towards extremity, the 3rd short, blunt; frons smooth; eyes large, round; antennæ of male almost simple; thorax clothed almost entirely with scales and without crests; fore tibiæ fringed with long hair on outer side, the mid and hind tibiæ smoothly scaled; abdomen with dorsal crest at base only. Fore wing with the costa highly arched towards base, the apex rounded, the termen evenly curved and not crenulate; vein 3 from well before angle of cell; 5 from above angle; 6 from below upper angle; 7 from angle; 8, 9, 10 very strongly stalked; 11 from cell. Hind wing with vein 3 from angle of cell; 4, 5 shortly stalked; 6, 7 from upper angle; 9 anastomosing with the cell to middle.

6623. Phæothripa morena.

Sarrothripa morena, Swinh. A. M. N. H. (7) vii. p. 490 (1901).

Head and thorax fuscous brown tinged with grey, thorax varying to whitish or ochreous brown; palpi white, the 2nd joint

black behind except at extremity, the 3rd blackish; abdomen grey tinged with brown; pectus, mid and hind legs, and ventral surface of abdomen white. Fore wing purplish fuscous, darker towards base, a diffused white patch at middle of inner area; faint traces of

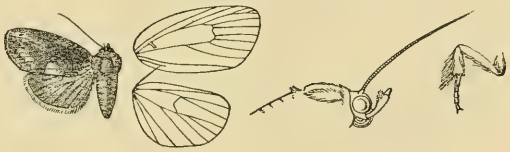


Fig. 113.—*Phæothripa morena*, ♂. ½.

a curved antemedial line; a point of raised dark scales at middle of cell and two points at discocellulars; postmedial line formed of minute white striæ with minute brown marks before them at vein 6 and discal fold, bent outwards below costa and very oblique from discal fold to the patch at middle of inner area; a subterminal series of blackish points, oblique towards costa and below vein 4; a terminal series of blackish points. Hind wing brown.

Hab. Perak, Goping (*Künstler*), 1 ♀; Borneo, Sarawak, 1 ♀ type, Kuching (*Shelford*), 2 ♂, Sandakan (*Pryer*), 1 ♂. *Exp.* 24–28 millim.

Genus **MEGATHRIPA**, nov.

Type, *M. rufimedia*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to middle of frons, the 3rd moderate; frons smooth; eyes large, round; antennæ of female ciliated; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with divided crest; tibiæ slightly fringed with hair; abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

6624. **Megathripa rufimedia**

Sarrothripa rufimedia, Hmpsn. Ann. S. Afr. Mus. iii. p. 429 (1905).

♀. Head and thorax grey mixed with black; palpi white in front; pectus white; legs ochreous white with some black and brown irroration, the fore tarsi black ringed with white; abdomen brown with ochreous white rings, the basal crest grey and black, the ventral surface white slightly irrorated with brown. Fore wing grey thickly irrorated with brown and black; subbasal line double, blackish, angled outwards below costa, then oblique; antemedial line double, blackish, oblique to median nervure where it is angled outwards, again angled outwards in submedian fold and excurved

above inner margin; an elliptical discoidal spot defined by rufous, its centre also faintly defined by rufous, placed on a large oblique elliptical pale rufous patch which extends to submedian fold; postmedial line double, blackish, strongly bent outwards below costa, then sinuous, angled inwards at vein 2 and outwards at submedian fold; subterminal line black, oblique towards costa,

Fig. 114.—*Megathripa rufimedia*, ♀. ½.

angled outwards at vein 7 and slightly excurved at middle. Hind wing white, the veins towards termen, apical area and termen suffused with brown; cilia white, brown at base from apex to vein 2.

Ab. 1. Fore wing without the rufous discal patch, the discoidal annulus defined by blackish; hind wing with the terminal area more strongly suffused with brown.

Hab. Mozambique, Shilouvane (*Junod*), 1 ♀; Rhodesia, Bulawayo (*Eyles*), 1 ♀ type. *Exp.* 30–36 millim.

Genus ŒDICRASPIS, nov.

Type, *Œ. subfervida.*

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching to vertex of head and with large tuft of scales behind at extremity, the 3rd moderate; frons smooth, with tuft of scales; eyes large, round; antennæ of female almost simple; thorax clothed almost entirely with scales, the prothorax with hump-shaped crest, the metathorax with depressed crest; tibiæ slightly fringed with hair; abdomen without crests. Fore wing with the costa slightly lobed just beyond middle; the apex rectangular, the termen evenly curved and crenulate; veins 3 and 5 from close to angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a short areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from well above angle; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

6625. Œdicraspis subfervida, n. sp.

♀. Head and thorax purplish grey mixed with black; pectus, mid femora, hind leg, and abdomen ocheous tinged with rufous and slightly irrorated with brown. Fore wing purple-grey irrorated with black and tinged in parts with brown; a black streak below base of cell; a slight blackish subbasal spot on costa; antemedial line indistinctly double, with black spot on the inner line at costa, slightly excurved to median nervure and strongly incurved at vein 1; an oblique white discoidal bar; postmedial line arising at middle of costa, almost obsolete and downcurved below the costa

where it is very strongly bent outwards, then distinct and black, very slightly incurved at discal fold, below vein 3 curving inwards to origin of vein 2, then erect, the costa beyond it blackish with white points; subterminal line whitish slightly defined on inner side by black and brown, minutely dentate towards costa and excurved at middle, a slight oblique black streak beyond it from

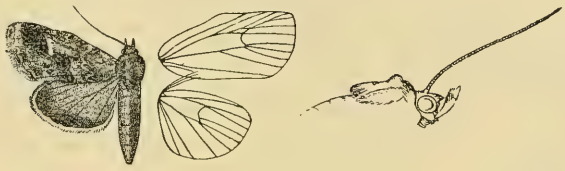


Fig. 115.—*Œdicraspis subfervida*, ♀. ⅔.

apex and dark shade at middle; a fine black terminal line. Hind wing reddish ochreous, the terminal area suffused with fuscous; the underside reddish ochreous, the costal area slightly irrorated with brown except towards base, a brown discoidal spot, waved postmedial line oblique below discal fold, and diffused blackish apical patch.

Hab. Br. E. Africa, Taveta (*Rogers*), 3 ♀ type. *Exp.* 22–24 millim.

Genus **ARACHNOGNATHA**.

	Type.
Arachnognatha, Hmpsn. Moths Ind. ii. p. 373 (1894)	*meterythra*.

Proboscis fully developed; palpi porrect, the 2nd joint curved, extending about twice length of head and fringed with hair above and below, the 3rd rather long; frons smooth with tuft of hair above; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; fore tibiæ fringed at sides with hair, the mid and hind tibiæ smoothly scaled; abdomen with dorsal crests on two basal segments. Fore wing with the costa highly arched towards base, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 9 from 10 anastomosing with 8 to form a long narrow areole, 7 from well before end of areole, 8 from the areole. Hind wing with the cell short; veins 3 and 5 from near lower angle; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

A. Hind wing purplish pink	*meterythra*.
B. Hind wing brown	*metascotia*.

*6626. **Arachnognatha meterythra.** (Plate CLXXXII. fig. 29.)

Arachnognatha meterythra, Hmpsn. Moths Ind. ii. p. 373 (1894).

♀. Head, thorax, and abdomen ochreous tinged with red-brown, the ventral surface paler. Fore wing pale olive-green slightly tinged in parts with rufous; antemedial line hardly traceable, curved; a black point in middle of cell; medial line very indistinct, double, curved; postmedial line very indistinct, oblique and whitish from

costa to vein 6, then hardly traceable, waved, some short red streaks beyond it on costa and a streak on vein 9; traces of a rather punctiform reddish subterminal line; cilia red. Hind wing purplish pink, tinged with brownish towards base; a black spot at tornus defined above by a whitish lunule; cilia pale pink; the underside with diffused dark postmedial line excurved below costa, then oblique.

Hab. Burma, E. Pegu (*Doherty*), type † ♀ in Coll. Rothschild. *Exp.* 36 millim.

6627. Arachnognatha metascotia.

Arachnognatha metascotia, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 451 (1897).

Head and thorax greyish brown; tegulæ and patagia olive-green, the latter edged with brown above; pectus and legs whitish tinged with brown, the fore tibiæ greenish; abdomen whitish tinged with brown especially towards extremity, the crests brown. Fore wing olive-green, the basal and inner areas with some brown suffusion and irroration except at tornus; a waved dark line close to base from costa to vein 1; antemedial line indistinctly double, brown, waved, curved, with dark spot at inner margin, an elongate dentate loop beyond it on vein 1; a point of raised dark scales in middle of cell; reniform defined by brown and with some brown in centre, round; an oblique brownish medial shade from costa to reniform;

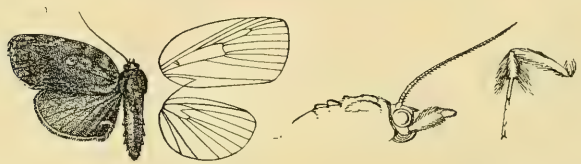


Fig. 116.—*Arachnognatha metascotia*, ♂. ½.

postmedial line whitish to discal fold and oblique to vein 6, below vein 5 brown, dentate, and inwardly oblique with whitish striga at inner margin, some minute brown streaks and whitish irroration beyond it on costa and a streak below vein 8; subterminal line formed of dentate brown marks defined slightly on outer side by whitish, somewhat excurved below vein 7 and at middle; a terminal series of blackish points; cilia brown. Hind wing greyish brown, the inner margin suffused with blackish towards tornus and with white postmedial bar; the underside brownish ochreous with diffused sinuous brown medial line.

Ab. 1. Fore wing with the markings redder brown; hind wing with a faint reddish tinge, the mark at tornus chocolate-brown. —Singapore.

Hab. Assam, Khásis, 1 ♂, 1 ♀ type; Singapore (*Ridley*), 1 ♂. *Exp.* 34–38 millim.

Genus **PETRINIA**.

Type.
Petrinia, Wlk. Proc. Nat. Hist. Soc. Glasg. i. p. 347 (1869) ..... *lignosa*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about middle of frons and moderately scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales, the metathorax with spreading crest; tibiæ nearly smoothly scaled; abdomen with dorsal crests on basal segments. Fore wing with the apex rounded, the termen strongly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from well above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

6628. **Petrinia lignosa.**

Petrinia lignosa, Wlk. Proc. Nat. Hist. Soc. Glasg. i. p. 348 (1869).

♂. Head, thorax, and abdomen brownish ochreous largely mixed with black-brown, the tegulæ with black line near tips, the patagia with oblique black bars near tips, the tarsi ringed with whitish. Fore wing ochreous suffused with rufous and irrorated with black on basal half, the costa and apical area black-brown mixed with some grey; an oblique dark shade from subcostal nervure before middle to inner margin near base, defined above by a curved grey streak with fine black streak above it, its outer edge angled inwards in cell and on vein 1; a slight black streak below costa from this antemedial shade to beyond middle where it is curved round and becomes the faint minutely dentate postmedial line, slightly angled inwards at discal and submedian folds and double

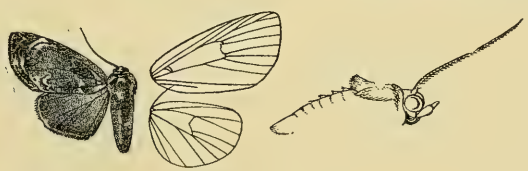


Fig. 117.—*Petrinia lignosa*, ♂. ½.

filled in with whitish on inner area; a blackish line from costa beyond middle slightly defined by whitish on outer side and on inner side also below costa and at lower extremity, excurved below apex to near termen and ending on postmedial line at submedian fold; a slight whitish subterminal line defined on inner side by black-brown, angled inwards below costa, then excurved to near termen; a slight punctiform dark terminal line; cilia dark brown with a fine whitish line at base. Hind wing dark cupreous brown with a greyish tinge; cilia whitish mixed with brown; the underside whitish tinged with brown and slightly irrorated with black, a dark discoidal lunule with striga above it from costa, sinuous postmedial line bent outwards below costa, and terminal series of points.

♀. Fore wing rather paler; hind wing with indistinct minutely waved postmedial and subterminal lines defined on outer side by whitish.

Hab. Gold Coast, Obuassi (*Bergman*), 1 ♀, Kumasi (*Whiteside*), 1 ♂; Congo (*Marsden*), 1 ♂ type. *Exp.* ♂ 32–36, ♀ 38 millim.

Genus **TRIORBIS.**

Type.

Triorbis, Hmpsn. Moths Ind. ii. p. 366 (1894) .... *annulata.*

Proboscis aborted, small; palpi upturned, the 2nd joint reaching to above vertex of head and rather slenderly scaled, the 3rd long and acuminate; frons with vertical ridge clothed with hair; eyes large, round; antennæ of male laminate and almost simple; thorax clothed almost entirely with scales, the pro- and metathorax with spreading crests; tibiæ and 1st joint of hind tarsi above of male fringed with long hair; abdomen with dorsal series of crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with vein 3 from before angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

A. Fore wing with metallic golden fascia below the cell ..... *aureovitta.*
B. Fore wing without metallic golden fascia below the cell ... *annulata.*

6629. Triorbis aureovitta.

Triorbis aureovitta, Hmpsn. J. Bomb. Soc. Nat. Hist. xiv. p. 209, pl. B. f. 16 (1902).

♂. Head and thorax bright red-brown mixed with some ochreous; palpi darker at sides; abdomen pale brown, the crests ochreous and brown, the anal tuft pinkish, the ventral surface yellowish white. Fore wing bright red-brown suffused with purplish pink and with ochreous in parts; a metallic golden fascia from base of costa below the cell to vein 2; antemedial line brown slightly defined on inner side by whitish, strongly angled outwards below costa, bent inwards in cell, angled outwards below the cell to postmedial line, then very oblique and sinuous to above inner margin where it is bent outwards to the postmedial line at vein 1; orbicular and reniform with tufts of brown scales in centres and whitish annuli defined by brown, small, round, the latter with its outer edge open and confluent with a tooth from postmedial line, which is brown defined on outer side by whitish, bent outwards below costa, strongly dentate outwards at vein 6 and inwards at discal fold to the reniform and at submedian fold to the antemedial line, strongly angled inwards at vein 1, and outwards above inner margin, then bent inwards to inner margin before middle; the postmedial area with some dark streaks from below costa to discal fold; subterminal line ochreous white, bent outwards below costa, slightly excurved at middle, angled inwards at submedian fold to the postmedial line; a slightly sinuous dark line defined on inner

side by ochreous white just before termen, bent inwards to costa, and a fine dark terminal line. Hind wing red-brown, the cell and costal area pale, the postmedial area with more or less ochreous on inner half; a chocolate-brown spot on inner margin at vein 1; the underside pale ochreous with brown discoidal lunule and diffused subterminal band.

♀. Thorax and abdomen darker, the latter with the sides of basal segments yellowish; fore wing darker with the medial part of costal area and cell suffused with fuscous, the fascia below the cell streaked with ochreous and blackish to base; hind wing dark brown.

Hab. Assam, Margharita; Penang (*Mackwood*), 1 ♂ type; S. Borneo, 1 ♂; W. Java, Tjampea, 1 ♂; Buru. *Exp.* 44–56 millim.

6630. **Triorbis annulata.**

Hyperæschra annulata, Swinh. Trans. Ent. Soc. 1890, p. 189, pl. 6. f. 15; Hmpsn. Moths Ind. ii. p. 366.

♀. Head and thorax pale grey-brown with some darker brown in metathoracic crest; tarsi blackish brown towards tips; abdomen pale ochreous brown with the crests darker brown. Fore wing grey suffused with red-brown and purple; a slight chocolate-brown streak on base of subcostal nervure; a downcurved chocolate-brown streak in submedian interspace defined above by white; antemedial line dark brown defined on inner side by whitish, excurved below costa and very strongly in submedian interspace, then very oblique to inner margin; orbicular and reniform with grey centres and brown annuli defined by whitish, large, round, almost confluent, the

Fig. 118.—*Triorbis annulata*, ♀. ½.

latter sometimes with a little pinkish in centre; postmedial line brown slightly defined by whitish below costa, angled outwards below costa, then incurved, excurved beyond the reniform and incurved in submedian interspace almost to the antemedial line, a brownish annulus with some pink in centre beyond it between veins 5 and 3, and blackish streaks in the interspaces from below costa to discal fold and in submedian fold; subterminal line whitish slightly defined on inner side by dark brown, excurved, slightly angled inwards at discal and submedian folds; a brown line slightly defined on inner side by whitish just before termen and a fine terminal

line. Hind wing ochreous suffused with dark reddish brown; cilia ochreous white with a brown line through them; the underside ochreous white irrorated with brown, a brown discoidal spot, indistinct curved postmedial line from costa to vein 2 and diffused subterminal line.

Hab. Burma, Thyetmyo, 2 ♀ type. *Exp.* 38 millim.

Genus **ELIGMA**.

	Type.
Eligma, Hübn. Verz. p. 164 (1827)	*narcissus.*
Panglima, Moore, Cat. Lep. Mus. E. I. C. ii. p. 297 (1859)	*narcissus.*
Surina, Wlk. Proc. N. H. Soc. Glasgow, i. p. 333 (1869)	*hypsoides.*

Proboscis aborted, small; palpi upturned, the 2nd joint reaching to well above vertex of head, the 3rd as long as the 2nd, slender, dilated at extremity; frons smooth, with ridge of scales above; eyes large, round; antennæ of male typically somewhat laminate and almost simple, the basal joint with tuft of hair in front; thorax clothed with scales and hair mixed and without crests; fore femora fringed with long hair, the tibiæ fringed on both sides with long hair, the mid and hind tibiæ slightly fringed with hair; abdomen with small crests on two basal segments. Fore wing long and narrow, the costa highly arched near base, then almost straight, the apex somewhat produced and acute, the termen nearly straight to vein 3, then oblique, not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with the termen somewhat excised at discal fold; veins 3 and 5 from close to angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to well beyond middle.

Sect. I. (*Surina.*) Antennæ of male with fascicles of long cilia.

A. Fore wing blue-black with broad yellow antemedial band and lunulate patch beyond the cell	*lætepicta.*
B. Fore wing violaceous brown with curved yellow and white fascia below the darker costal area.	
a. Hind wing with white apical patch.	
a^1. Fore wing with the black line from near lower angle of cell to inner margin double	*duplicata.*
b^1. Fore wing with the black line from near lower angle of cell to inner margin single	*hypsoides.*
b. Hind wing without white apical patch	*malagassica.*

6631. **Eligma lætepicta.**

Eligma lætepicta, Oberth. Ét. Ent. xvii. p. 32, pl. 1. f. 6 (1893).

Head and thorax blue-black; pectus and legs orange; fore legs blue-black, the mid tibiæ banded orange and black, the tarsi black ringed with white; abdomen orange, the crests at base black, the two following segments with small dorsal and lateral black spots, the anal tuft black above. Fore wing blue-black; a broad obliquely curved sulphur-yellow band from just below costa to inner margin before middle, its outer edge somewhat sinuous; a large lunulate yellow patch beyond the cell from below costa to vein 3. Hind wing orange with blue-black terminal band, extending to middle of costa and narrowing to a point at tornus, its inner edge oblique to vein 4, then sinuous; cilia white at tips towards apex. Underside of fore

wing with the yellow extending to base; hind wing with white apical patch.

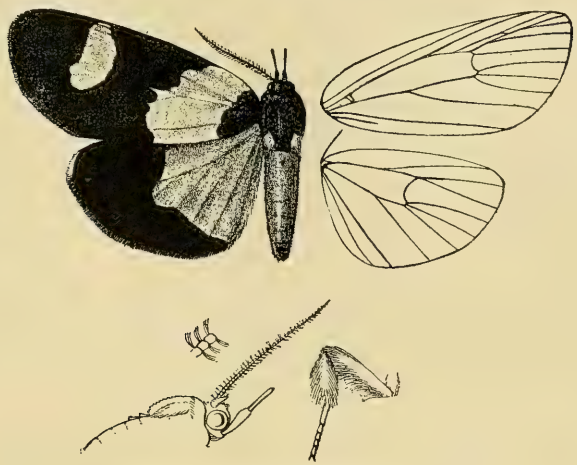


Fig. 119.—*Eligma lætepicta*, ♂. ½.

Hab. Br. E. Africa, Usambara, 1 ♀, Kilima'njaro (*Rogers*), 5 ♂, 1 ♀. *Exp.* 68–82 millim.

6632. **Eligma duplicata.** (Plate CLXXXIII. fig. 4.)

Eligma duplicata, Auriv. Ent. Tidskr. xiii. p. 191, f. 1 *b* (1892).
Panglima gloriosa, Holl. Psyche, vi. p. 568, pl. 20. f. 1 (1893), nec Butl.

Head and thorax brownish grey; palpi black with some white irroration, on 2nd joint forming a patch at side, the tips of joints white; frons with black band; antennæ fuscous with pair of black spots at their base; tegulæ with pair of dorsal black spots and spots at sides; patagia with spots at middle and tips; meso- and metathorax with pairs of spots; pectus and legs yellow, the fore and mid tibiæ grey, the former with two black spots, the latter with one spot, the tarsi black ringed with white; abdomen orange-yellow, the basal crests black, the two following segments with small dorsal and lateral black spots, the anal tuft black at tips. Fore wing with the costal area slate-brown, at middle extending to median nervure, narrowing to points at base and apex and angled at lower angle of cell and vein 5, defined below by sulphur-yellow from base to near apex, produced to short streaks beyond lower angle of cell and with a white fascia below it, the rest of wing violaceous brown; three small black spots at base followed by a curved series of three spots; an antemedial black bar above submedian fold and oblique line from the fold to inner margin; postmedial line represented by an oblique series of black striæ in the interspaces between veins 7 and 3 beyond the yellow, then by a double black line filled in with

bluish white, retracted to lower angle of cell, then sinuous to inner margin, some violaceous white suffusion with small brown spots on it beyond the postmedial line from costa to submedian fold; a subterminal series of pairs of obliquely-placed black spots in the interspaces from below costa to vein 2, then single spots. Hind wing orange-yellow; a black terminal band, broad at costa and narrowing to a point at vein 1, its inner edge evenly curved; a white apical patch. Underside of fore wing with the basal half orange-yellow, the costa and terminal half black tinged with violaceous grey, a short white streak in discal fold beyond the cell.

Hab. Cameroons, 2 ♀, Bibundi; Uganda (*Scott-Elliot*), 1 ♀; Br. C. Africa, Nyasa (*Sharpe*), 1 ♂. *Exp.* 70–80 millim.

Larva. Auriv. Ark. f. Zool. ii. 4, p. 38. f. 29 (1904).

Bright yellow with black bands at middle of segments, the thoracic somites with the bands confined to dorsal area and with black spots above the legs; head black; the warts with long blackish hair.

Pupa bright brown in a thick tough downy cocoon.

6633. **Eligma hypsoides.** (Plate CLXXXIII. fig. 5.)

Surina hypsoides, Wlk. Proc. N. H. Soc. Glasgow, i. p. 333 (1869); Kirby, Cat. Lep. Het. pp. 383, 917.

Panglima gloriosa, Butl. Trans. Ent. Soc. 1875, p. 325; Auriv. Ent. Tidskr. xii. p. 228, pl. 1. f. 2.

♀. Head and thorax grey-brown with a purplish tinge; palpi black, the 1st joint with white ring at extremity, the 2nd with white irroration and point at tips, the 3rd with white streak and tip; lower part of frons with black spot; black spots at base of antennæ; tegulæ with pair of dorsal spots near base and spots on outer edge; the patagia with black spots at middle and extremities; the mesothorax with pair of black spots and the metathorax with small lateral tufts of black hair and edged with black behind; pectus orange-yellow; fore legs grey, the tibiæ with two black spots, the tarsi with black bands at base and near extremity, the mid and hind tibiæ grey streaked with yellow, the mid tibiæ with black spot, the tarsi grey-brown; abdomen orange-yellow, the basal crest grey-brown and the 2nd black, the following segments with small dorsal and lateral black spots. Fore wing with the costal area slate-brown extending at middle to median nervure and narrowing to points at base and apex, defined below by sulphur-yellow to below apex, angled at lower angle of cell and produced to short streaks on the veins beyond the cell, with a violaceous white fascia below it on median area, the rest of wing violaceous brown; three black points at base followed by a curved series of three points; an oblique black streak from costa defining the upper edge of the base of the yellow fascia; a waved subbasal black line from median nervure to inner margin and a waved line from near extremity of median nervure to inner margin; two obliquely placed black points beyond lower angle of cell; some violaceous white reticulated marks beyond the yellow fascia and before and beyond an oblique line extending from

below apex to submedian fold; the veins of terminal area streaked with violaceous; the interspaces of terminal area with subterminal pairs of obliquely placed black points from below apex to submedian fold, the lowest pair not placed obliquely. Hind wing orange-yellow with blue-black terminal band, broad at costa and narrowing to a point at vein 1, its inner edge evenly curved, a white patch on it at apex; cilia white at tips from the apical patch to vein 1. Underside of fore wing orange-yellow to middle, its outer edge excurved and sinuous, the costal edge and rest of wing black-brown suffused with blue.

Hab. S. Nigeria, Old Calabar (*Rutherford*), 1 ♀; Cameroons; Congo; Angola, Cabinda (*Monteiro*), 1 ♀ type *gloriosa*. *Exp.* 76 millim.

Larva Auriv. Ark. f. Zool. ii. 4, p. 36 (1904).

Uniform bright yellow, almost sulphur-yellow; upperside of head dark; warts small with very long whitish hairs; prolegs all present.

Pupa bright brown in a thick tough downy cocoon.

*6634. **Eligma malagassica.** (Plate CLXXXIII. fig. 25.)

Eligma malagassica, Roths. Nov. Zool. iii. p. 57 (1896).

♀. Head and thorax grey-white tinged with brown; palpi black, the 2nd joint irrorated with white, the 3rd streaked with white; basal joint of antennæ and base of shaft ringed with black; tegulæ, pro- and metathorax with paired black spots; fore tibiæ with three black spots, the mid tibiæ with one spot; pectus and hind legs orange; tarsi grey, black at base; abdomen orange with dorsal and lateral series of small black spots. Fore wing violaceous white; the costal area olive-brown from near base to near apex, defined by sulphur-yellow below except towards apex, extending at middle to discal fold and with its lower and outer edges dentate; the inner and terminal areas suffused with purplish brown, extending to the cell except at middle; five black points at base; subbasal black striæ below costa and cell and a small spot in cell; a waved antemedial black line from cell to inner margin; a medial whitish line from submedian fold to above inner margin, angled inwards at vein 1; postmedial line black, arising at discal fold, interrupted, curved downwards and retracted to lower angle of cell below which it is double for a short distance, then erect and sinuous; a waved whitish subterminal line from below costa to above inner margin, with small brown spots before it at middle, double from vein 2 to submedian fold; a dentate black line slightly defined on inner side by white before termen from below costa to vein 1. Hind wing orange; a terminal brown band tinged with purplish, broad at costa and narrowing to a point at vein 2 where it terminates. Underside of fore wing orange, the costal edge and terminal area brown with a purplish tinge, the brown area ending at vein 1 and with irregular inner edge.

Hab. Madagascar, Morondava, type † ♀ in Coll. Rothschild. *Exp.* 60 millim.

Sect. II. (*Eligma*). Antennæ of male almost simple.

A. Hind wing yellow with blue-black terminal band ..... *narcissus.*
B. Hind wing wholly black-brown ..... *orthoxantha.*

6635. Eligma narcissus.

Bombyx narcissus, Cram. Pap. Exot. 1. pl. 73. ff. E, F (1775); Hmpsn. Moths Ind. ii. p. 43; Kirby, Cat. Lep. Het. p. 383.
Eligma indica, Roths. Nov. Zool. iii. p. 57 (1896).
Eligma javanica, Roths. Nov. Zool. iii. p. 58 (1896).
Eligma philippinensis, Roths. Nov. Zool. iii. p. 58 (1896).

Head and thorax grey-brown with a faint purplish tinge; palpi with black streak at sides and patch at tips; lower part of frons with black spot; a pair of spots at base of antennæ; tegulæ with pair of dorsal spots near base and spots at sides; patagia with spots near base and at tips; mesothorax with a pair of spots, the metathorax with two pairs; pectus and legs yellow, the fore legs grey-brown above, the tibiæ with two pairs of black spots, the tarsi with black bands at base and near tips, the mid and hind tibiæ with black spots, the tarsi brown tinged with grey; abdomen yellow, the basal crests grey-brown tipped with black, the other segments with

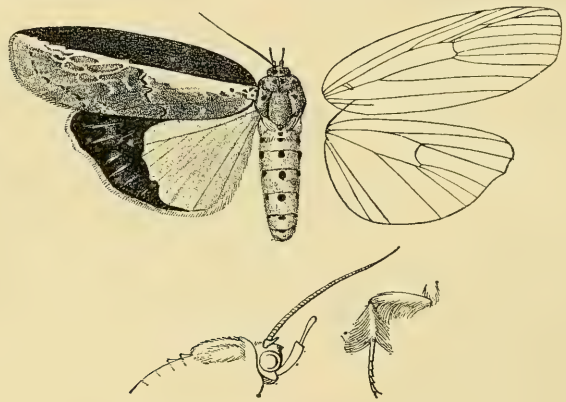


Fig. 120.—*Eligma narcissus*, ♂. ½.

dorsal and lateral series of black spots. Fore wing with the costal area dark slate-brown with an olive tinge, at middle extending to discal fold and narrowing to points at base and apex, a curved white fascia below this area, its upper edge slightly angled before middle and at lower angle of cell and its lower edge somewhat diffused, the rest of wing grey-brown with a purplish tinge; three black points at base with a curved series of three points beyond it; an oblique black streak from costa on the upper edge of the white fascia; an antemedial black point in cell, two below it defined by white and a point above inner margin; a black line from median

nervure near extremity of cell, angled inwards in submedian fold and incurved below vein 1; beyond the cell the white fascia is produced to slight streaks on the veins with reticulate white marks beyond it before and beyond an oblique white line from vein 6 to submedian fold; a curved subterminal series of black points and striæ from below apex to vein 1. Hind wing yellow; a black terminal band suffused with metallic blue and with white streaks on the veins, broad towards costa on which it extends to near base and narrowing to a point at submedian fold, its inner edge incurved at vein 2; the cilia brown at base and white at tips from apex to submedian fold. Underside of fore wing black suffused with blue, the veins and costa streaked with white, a white discoidal spot, a yellow patch at base with irregular outer edge; hind wing with the veins on the dark costal and terminal areas prominently streaked with white.

Ab. 1. *indica*. Fore wing with the blue gloss and white streaks on underside slight or almost absent.—Peninsular India.

Ab. 2. *javanica*. Hind wing with the terminal band broader, its inner edge evenly curved; abdomen with the dorsal spots very small.—Java.

Ab. 3. *philippinensis*. Similar; fore wing with the portion of the medial line in cell reduced to a point, the subterminal spots larger; hind tibiæ without black spot.—Philippines.

Hab. Centr. China, Wei-hai-wei (*T. B. Fletcher*), 1 ♂, Foo-chow (*de la Touche*), 1 ♂, Ichang (*Mrs Pratt*), 1 ♂; W. China, Chang-yang, 1 ♀, Omei-shan, 1 ♂, 1 ♀, Washan (*Pratt*), 1 ♂, Chia-kou-ho (*Pratt*), 1 ♂, Moupin (*Kricheldorf*), 2 ♀; Ganjam; Bombay, Ratnagiri (*Jayaker*), 1 ♂; Madras, 1 ♂, 3 ♀, Calicut (*Fellows-Wilson*), 1 ♂, Nilgiris (*Hampson*), 1 ♂, 1 ♀; Travancore, Trivandrum (*Fergusson*), 1 ♀; Penang, 1 ♀; Philippines, Mindoro; Java. *Exp.* 62-84 millim.

*6636. **Eligma orthoxantha.** (Plate CLXXXIII. fig. 26.)

Eligma orthoxantha, Lower, Tr. R. Soc. S. Austr. xxvii. p. 27 (1903).

♀. Head and thorax drab; palpi with the 2nd joint yellow with black point at extremity, the 3rd joint white with black point at base and band near extremity; vertex of head, tegulæ on inner and outer sides, patagia and meso- and metathorax with paired black points; pectus and legs orange, the tibiæ with black points; abdomen orange with dorsal and lateral series of small black spots. Fore wing drab with five small black spots in a semicircle at base; antemedial small black spots on costa, below cell and above inner margin and with black spots beyond them in and below cell, followed by a white band with dentate outer edge from costa to median nervure with a dentate line from it to vein 1; a series of small black spots from middle of costa, almost parallel to costa to well beyond middle on vein 7, oblique to vein 4, then bent inwards to near origin of vein 2, then as an interrupted line angled outwards

in submedian fold, then incurved; reniform defined by white; an oblique white fascia from apex to a double chain-like white subterminal line incurved below vein 3; a terminal series of small black and white lunules. Hind wing black-brown, the cilia whitish at tips. Underside of fore wing black, greyish towards termen and with orange patch at base.

Hab. Queensland, Makay, type † ♀ in Coll. Lower. *Exp.* 58 millim.

Genus **LOPHOSEMA**, nov.

Type, *L. purpurascens*.

Proboscis slight, not functional; palpi obliquely upturned, the 2nd joint reaching to vertex of head and fringed with hair above towards extremity, the 3rd long and dilated at extremity; frons with tuft of hair above; eyes large, round; antennæ of male laminate, minutely serrate and ciliated; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with depressed crest; fore and hind tibiæ broadly fringed on each side with hair, the hind tibiæ slightly fringed; abdomen with dorsal crests on basal segments. Fore wing with the apex rounded, the termen nearly straight to vein 4, then very oblique to tornus; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long narrow areole; 11 from cell. Hind wing with veins 3 and 5 from close to angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

6637. **Lophosema purpurascens.**

Lophosema purpurascens, Schaus, A. M. N. H. (8) vi. p. 204 (1910).

♂. Head and thorax purplish grey, the vertex of head with black streak, the tegulæ with black streak at middle and purplish red outer edge, the patagia edged above with purplish red; pectus in front and legs ochreous, the fore and mid tibiæ with some purplish grey and streaked with black; abdomen fuscous brown, the crests greyish and red-brown, the ventral surface ochreous white. Fore

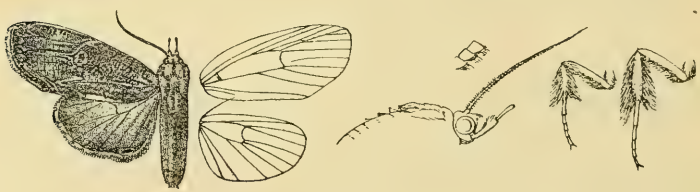


Fig. 121.—*Lophosema purpurascens*, ♂. ½.

wing purplish red streaked with black; a fine black streak on base of subcostal nervure; a fine black streak defined by greyish in submedian fold; orbicular and reniform with ochreous centres with tufts of red-brown scales in them and red-brown annuli defined by grey, round, the latter produced to a point on outer side; a wedge-shaped grey mark on middle of inner margin; postmedial line

dark brown defined on each side by greyish towards costa and on outer side towards inner margin, strongly bent outwards below costa, then acutely bidentate to discal fold, excurved to vein 3, then bent inwards to below end of cell and acutely bidentate above inner margin; subterminal line ochreous white, curved, minutely dentate with slight blackish streaks before it extending to postmedial line below veins 8 and 6 and above 1 and with slight dark streaks beyond it; a fine black terminal line defined on inner side by a fine ochreous line; cilia red-brown mixed with ochreous. Hind wing whitish suffused with brown, the interspaces semihyaline except towards termen; some blackish bars with whitish between them on inner margin at tornus; cilia ochreous white at base and whitish at tips; the underside whitish, the costal and terminal areas suffused with brown.

Hab. Costa Rica, Tuis (*Schaus*), 1 ♂; Fr. Guiana, St. Laurent Maroni. *Exp.* 44 millim. Type † in U.S. Nat. Mus.

Genus **POLIOTHRIPA**, nov.

Type, *P. ameria*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd long and dilated at extremity; frons with pointed conical prominence; eyes large, round; antennæ of female ciliated; thorax clothed almost entirely with scales and without crests; tibiæ moderately fringed with hair; abdomen with dorsal crests on basal segments. Fore wing with the apex rounded, the termen evenly curved and slightly crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

6638. **Poliothripa ameria.**

Polia ameria, Druce, P. Z. S. 1890, p. 515; id. Biol. Centr.-Am., Het. ii. p. 487, pl. 94. f. 17.

♀. Head and tegulæ whitish mixed with brown, the latter fuscous at tips; 2nd joint of palpi and sides of frons brown; thorax white with some brown and black scales; pectus and legs tinged with ochreous brown, the tarsi fuscous ringed with white; abdomen whitish dorsally mixed with brown. Fore wing whitish mixed with fuscous black; subbasal line double, sinuous, from costa to submedian fold; antemedial line double, sinuous, angled outwards below vein 1, then oblique to inner margin, the outer line forming a wedge-shaped blackish patch at costa; claviform and orbicular absent; reniform an oblique blackish lunule with obscure whitish annulus; medial line indistinct, waved, bent outwards in cell; postmedial line black, oblique from costa to vein 4 where it is acutely angled, then bent inwards to lower edge of reniform and again slightly outwards above inner margin, some black points beyond it on costa; subterminal line blackish, angled outwards

below veins 7 and 5, then waved, a blackish shade from it to termen below vein 4; a crenulate blackish line just before termen; cilia chequered brownish and white. Hind wing white, the veins of

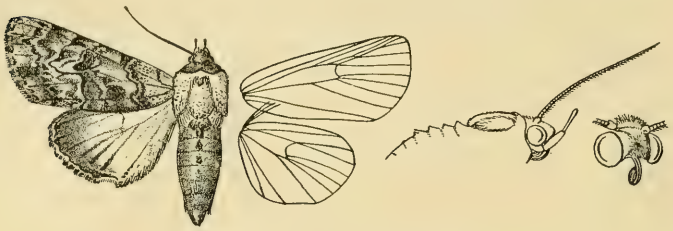


Fig. 122.—*Poliothripa ameria*, ♀. ½.

terminal half and terminal area suffused with brown; a crenulate dark terminal line; cilia chequered brown and whitish; the underside white, the costal area and terminal area to vein 4 slightly irrorated with brown.

Hab. Guatemala, Volcan de Atitlan (*Champion*), 1 ♀ type, Godman-Salvin Coll. *Exp.* 54 millim.

Genus **PUCIALIA.**

	Type.
Pucialia, Wlk. Char. Undescr. Het. p. 25 (1869)	*furcifera.*
Libunea, Wlk. Char. Undescr. Het. p. 35 (1869)	*argentea.*

Proboscis aborted, minute; palpi upturned, the 2nd joint reaching to well above vertex of head and fringed with hair behind towards extremity, the 3rd long and dilated at extremity; frons smooth with ridge of hair above; eyes large, round; antennæ of female minutely ciliated; thorax clothed with hair and scales mixed, the pro- and metathorax with loose spreading crests; fore tibiæ fringed with long hair on both sides, the mid and hind tibiæ moderately fringed with hair; abdomen with dorsal series of crests. Fore wing with the apex rectangular, the termen evenly curved and slightly crenulate; veins 3 and 5 from near angle of cell, 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell to middle only.

A. Hind wing semihyaline whitish.
  a. Fore wing with strong oblique black fasciæ from base of costa and from costa before middle to postmedial line ..... *argentea.*
  b. Fore wing without oblique black fasciæ from costa to postmedial line.
    a^1. Fore wing with more or less branching black fascia below the cell.
      a^2. Fore wing with the postmedial line slightly excurved to vein 4, then slightly incurved ..... *furcifera.*
      b^2. Fore wing with the postmedial line oblique and minutely dentate to vein 4, then strongly angled inwards ..... *mariva.*

b^1. Fore wing without black fascia below the cell.
a^2. Fore wing with the postmedial line incurved below vein 4.
a^3. Fore wing with the postmedial line dentate at middle ..... *chlorographa.*
b^3. Fore wing with the postmedial line not dentate at middle ..... *poliopepla.*
b^2. Fore wing with the postmedial line straight and erect below vein 4 ..... *rectilinea.*
B. Hind wing whitish tinged with brown, the terminal area darker ..... *purissima.*
C. Hind wing brown with some pale and dark striæ on vein 1 towards its extremity ..... *similis.*

6639. **Pucialia argentea.** (Plate CLXXXIII. fig. 1.)

Libunca argentea, Wlk. Char. Undescr. Het. p. 35 (1869).

♀. Head and thorax grey-white irrorated with a few brown scales; palpi with the 2nd joint chocolate-brown above; frons and shoulders chocolate-brown; tarsi banded with chocolate-brown. Fore wing grey-white thickly striated with chocolate-brown; a black-brown fascia from base of costa to postmedial line below the cell and another from costa before middle to postmedial line at discal fold, where it is met by a diffused oblique chocolate-brown fascia from apex; some brown suffusion on costal area towards apex; a slight subbasal dark streak with some green scales on it below costa and some green scales on lower edge of the submedian fascia; an antemedial black-brown point on vein 1; postmedial line chocolate-brown, very oblique from costa to vein 6, then waved, incurved below vein 4, some green scales before it at discal fold and a streak beyond it below vein 3; the middle of inner margin tinged with green; subterminal line whitish, very oblique from costa to vein 6 near termen, then waved, angled inwards at vein 7; a series of chocolate-brown and whitish striæ below apical part of costa and just before termen. Hind wing whitish tinged with brown, the terminal area suffused with brown.

Hab. Honduras, Limas (*Brockholes*), 1 ♀ type. *Exp.* 48 millim.

6640. **Pucialia furcifera.**

Pucialia furcifera, Wlk. Char. Undescr. Het. p. 25 (1869).

Head, thorax, and abdomen grey mixed with purplish brown; palpi with the 2nd joint black at sides except towards extremity, the 3rd blackish towards extremity; the ridge of hair above frons black below; tegulæ with black medial line; tarsi blackish above. Fore wing grey mixed with purple-brown; a sinuous black streak from base of costa to below origin of vein 2, forking above at median nervure and below towards extremity; an oblique antemedial brown bar from costa and some bluish yellow on inner margin; a dark point in middle of cell and slight discoidal lunule with some bluish yellow and dark scales between them; postmedial line black-brown, indistinctly double beyond the cell, obliquely curved from costa to

vein 4, then incurved; subterminal line white, dentate, angled inwards below vein 3 where there is a short bluish streak before it, a black streak beyond it below costa; a series of black and white

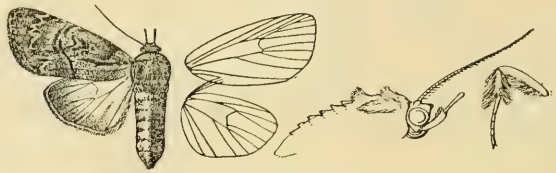


Fig. 123.—*Pucialia furcifera*, ♀. ½.

striæ just before termen. Hind wing semihyaline white, the veins, costal and terminal areas suffused with brown.

Hab. Honduras, Limas (*Brockholes*), 1 ♀ type; Costa Rica, Tuis, Juan Vinas; Br. Guiana, Potaro R. (*Kaye*), 1 ♀; Fr. Guiana, St. Laurent Maroni (*le Moult*), 1 ♀, Cayenne, 1 ♀. *Exp.* 40 millim.

6641. **Pucialia mariva.** (Plate CLXXXIII. fig. 2.)

Heterocampa mariva, Dogn. Le Nat. (2) v. p. 109 (1891); Kirby, Cat. Lep. Het. p. 564.
Gadirtha cristata, Druce, A. M. N. H. (7) vii. p. 79 (1901).

Head, thorax, and abdomen grey-white mixed with fuscous brown; palpi with the 2nd joint black at sides, white in front; tegulæ with black medial line; fore tarsi black at tips; mid tarsi black above. Fore wing grey-white suffused with fuscous brown; a black streak from base of costa below the cell to origin of vein 2, forking slightly at median nervure, with some white above it and greenish yellow scales below it; antemedial line represented by an oblique black shade from costa with streak beyond it on subcostal nervure and small spots in cell and on vein 1; a short black streak defined by white in middle of cell followed by some greenish yellow and black scales; a yellow streak below middle of costa and another on inner margin, both irrorated with black; postmedial line black, oblique, and minutely dentate from costa to below vein 3, then retracted to near origin of vein 2, angled outwards below vein 2 and excurved above inner margin, yellow and black streaks beyond it above and below vein 6 and below vein 3; subterminal line white with some yellow before it towards costa, excurved and dentate to below vein 3, then angled inwards, a black streak beyond it below apex; a series of small black spots just before termen and two larger marks with some yellow on them on termen above tornus. Hind wing white, the veins, costal and terminal areas brown; cilia white at tips.

♂. Fore wing with some white suffusion below the cell before and beyond the postmedial line.

Hab. Costa Rica, Juan Vinas (*Schaus*), 1 ♂; W. Colombia, San Antonia (*Palmer*), 1 ♀; Venezuela, 1 ♀; Peru, La Oroya, R. Inambari (*Ockenden*), 1 ♂. *Exp.* 62 millim. Type † in Coll. Dognin.

*6642. **Pucialia chlorographa.** (Plate CLXXXIII. fig. 3.)

Pucialia chlorographa, Dogn. Mém. Ent. Soc. Belg. xviii. p. 153 (1910).

♂. Head and thorax pale brown mixed with dark brown and whitish; palpi with the 2nd joint black above; pectus and legs brownish white, the fore and mid tibiæ with dark brown mixed, the tarsi banded with black; abdomen pale brown, the ventral surface whitish. Fore wing brownish white suffused in parts with brown and irrorated with dark brown; a silvery blue-green streak on inner margin except at base, a slight streak below base of cell, a spot in end of cell and an oblique streak on base of vein 2; an oblique black streak from base of costa to median nervure; traces of a waved antemedial line; a small yellowish annulus with black centre in middle of cell and small black spots below middle of cell and above vein 1; postmedial line black, oblique to vein 6, then dentate, excurved to vein 4, then bent inwards to below end of cell: a slight whitish subterminal line, angled outwards below costa and at vein 6, then waved, with black streaks before and beyond it below costa and at discal fold; a series of slight white lunules with black marks on their outer side just before termen and a slight subapical black streak; a terminal series of black striæ. Hind wing semi-hyaline white tinged with brown especially on the veins; the terminal area suffused with brown, narrowing to tornus; cilia white; the underside with the costal area suffused with brown.

Hab. Fr. Guiana, St. Laurent Maroni, type †♂ in Coll. Dognin. *Exp.* 44 millim.

6643. **Pucialia poliopepla.** (Plate CLXXXIII. fig. 6.)

Iscadia poliopepla, Hmpsn. A. M. N. H. (7) xvi. p. 579 (1905).

♀. Head and thorax grey mixed with dark brown; palpi with the 2nd joint white in front, black at sides except at tips; vertex of head blackish; tegulæ with black medial line; abdomen grey, the dorsal crests blackish at tips. Fore wing grey irrorated with black and suffused with brown except on basal and terminal areas, the basal area whiter; an obliquely curved dark antemedial line; a diffused dark line forming the inner edge of the brownish area; a black point in end of cell and two black discoidal points on a faint whitish bar; postmedial line obliquely excurved from costa to vein 4, then strongly incurved and sinuous, angled inwards just below submedian fold, followed by another minutely dentate line bent inwards below vein 3; subterminal line white, very irregular, oblique at costa, angled inwards below vein 7 and at discal fold, interrupted and bent inwards to the 2nd postmedial line at vein 2, where it

forms a whitish mark irrorated with black, then oblique and sinuous to tornus, some short black streaks beyond it towards apex ; a series of prominent black points just before termen forming two striæ above tornus. Hind wing white, the veins and marginal areas slightly tinged with brown ; the underside with brown patch on costa before apex.

Hab. Brazil, Rio Janeiro (*E. Wilson*), 1 ♀ type. *Exp.* 44 millim.

6644. **Pucialia rectilinea.** (Plate CLXXXIII. fig. 7.)

Pucialia rectilinea, Dogn. Mém. Soc. Ent. Belg. xviii. p. 153 (1910).

Head and thorax dark brown mixed with greyish ; pectus and mid and hind legs brownish white ; abdomen greyish suffused with brown, the ventral surface whitish. Fore wing grey-white almost entirely suffused with dark purplish brown and slightly irrorated with black ; an oblique straight black antemedial line defined on inner side by whitish ; an oblique black striga at upper angle of cell and point at lower on slight whitish marks ; postmedial line double, filled in with whitish and defined on inner side by whitish, the inner line prominent and black, slightly excurved below costa, then straight and erect, a dark shade beyond it defined on outer side by white suffusion, obliquely incurved below vein 4 ; a series of strong black striæ before termen defined on inner side by white ; a fine black terminal line. Hind wing whitish tinged with brown especially towards termen, the veins of terminal area streaked with brown.

Hab. Fr. Guiana, St. Jean Maroni (*Schaus*), 1 ♂, St. Laurent Maroni, type † ♀ in Coll. Dognin. *Exp.* 44 millim.

*6645. **Pucialia purissima.** (Plate CLXXXVI. fig. 15.)

Iscadia purissima, Dyar, Pr. U.S. Nat. Mus. xxxviii. p. 252 (1911).

♀. Head and thorax white irrorated with a few black scales ; tegulæ brownish ; abdomen grey, the basal crest brown and white. Fore wing white with striæ of raised scales ; the basal costal area blackish ; a patch of yellow-green scales below median nervure before the antemedial line, which is black, inwardly oblique to submedian fold where it is angled inwards, then double filled in with green and bent inwards to inner margin, a semicircular black mark beyond it on inner area ; orbicular a black point ; reniform incompletely defined by black, elliptical ; postmedial line black, strong and oblique to vein 6, below vein 4 slightly incurved, and at vein 3 angled inwards towards lower angle of cell, then obliquely excurved, a series of green and yellow patches beyond it in the interspaces defined on outer side by a waved grey line ; a strong black streak on vein 6 from termen to the postmedial line with a slight waved streak above it ; subterminal line indistinct, white defined on outer side by brown suffusion ; a fine waved black terminal line ; cilia intersected with black at the veins. Hind wing whitish suffused

with brown, the veins and terminal area darker; a dark striga defined on outer side by white from inner margin above tornus, the termen irrorated with grey; cilia whitish intersected by fuscous at the veins.

Hab. Mexico, Vera Cruz, Misantla (*Müller*). *Exp.* 70 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

6646. **Pucialia similis.** (Plate CLXXXIII. fig. 22.)

Gadirtha similis, Druce, A. M. N. H. (7) vii. p. 79 (1901).

♂. Head and thorax grey-white, the head and tegulæ with dark brown mixed, the thorax with a few black scales; pectus, legs, and abdomen greyish suffused with dark brown. Fore wing ochreous whitish irrorated and in parts suffused with brown, the terminal half slightly darker; a wedge-shaped black-brown patch on costa with a slight golden-green spot on it and a streak below median nervure defined above by golden green; antemedial line black, double towards costa and inner margin, sinuous, very obliquely bent inwards to inner margin and with some golden green between the lines; orbicular and reniform large, defined by black, the former round with faint annulus in centre, the latter elliptical; a faint line from middle of costa, oblique to the reniform, double and waved from cell to inner margin, with a patch of golden-green scales on it in submedian interspace; medial line indistinct, double, highly dentate, from beyond upper angle of cell to inner margin; postmedial line black, obliquely excurved from costa to vein 4, bent inwards at vein 3 and excurved above vein 1, a black streak beyond it at discal fold to near termen and some elongate black and golden-green marks above and below vein 7 and from vein 3 to inner margin; subterminal line indistinct, double, dentate, crossed by black streaks above veins 6 and 4; a fine sinuous black line before termen with fuscous streaks beyond it on the veins. Hind wing brown with a slight purplish tinge; some pale and blackish striæ on vein 1 towards termen and a slight mark at extremity of vein 2; the underside irrorated with ochreous, the terminal area darker, a faint discoidal bar and traces of a curved postmedial line.

Hab. Costa Rica, Juan Vinas (*Schaus*), 1 ♂; Venezuela, Merida (*Briceno*), type † ♂ in Coll. Druce. *Exp.* 66 millim.

Genus **GADIRTHA.**

	Type.
Gadirtha, Wlk. xiii. 1102 (1857)	*inexacta.*
Scolopocneme, Feld. Wien. Ent. Mon. vi. p. 37 (1862)	*inexacta.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to above vertex of head and slenderly scaled, the 3rd long and dilated at extremity; frons smooth, with tuft of hair above; eyes large, round; antennæ of male with fasciculate cilia; thorax clothed almost entirely with scales, the meta-

thorax with slight crest; fore tibiæ very broadly fringed on each side with hair, the mid and hind tibiæ moderately fringed, the fore and mid tarsi with slight tufts of scales at the joints; abdomen with dorsal series of hairy crests. Fore wing with the apex rounded, the termen typically evenly curved, crenulate; veins 3 and 5 from close to angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

Sect. I. Antennæ of male with fascicles of extremely long cilia.

6647. Gadirtha trichocera, n. sp.

♂. Head and thorax brownish ochreous with some black scales; abdomen brownish grey mixed with fuscous and with dorsal series of slight triangular marks defined by black striæ. Fore wing brownish ochreous irrorated with black and suffused in parts with blue-green; subbasal line represented by slight oblique double black striæ from costa; antemedial line indistinct, double, waved; a tuft of black scales in middle of cell; reniform round, defined by black and with tuft of black scales in centre; a slight oblique minutely waved medial line from costa to discal fold, a round black spot beyond lower angle of cell, an oblique elliptical spot on base of vein 2 and a round spot above vein 1 just beyond the antemedial line; postmedial line black, double and oblique from costa to discal fold, then single, inwardly oblique, dentate, and angled inwards at

Fig. 124.—*Gadirtha trichocera*, ♂. ½.

submedian fold, the veins beyond it streaked with black on apical area; subterminal line white, incurved and with some white suffusion beyond it from costa to vein 6, then indistinct, minutely waved and with slight black streaks beyond it on the veins; a fine waved black terminal line. Hind wing white, the terminal area broadly suffused with fuscous with traces of the postmedial line on its inner edge and double black bar filled in with white at inner margin; cilia white tinged with brown at base; the underside with the costal area tinged with brown, a slight discoidal lunule.

♀. Head and thorax tinged with green; fore wing with the basal costal area suffused with green; the antemedial area from

just above median nervure and the medial area suffused with white, black spots on inner margin before the antemedial and beyond the postmedial lines, and without medial black spots.

Hab. Dutch N. Guinea, Kapaur (*Doherty*), 1 ♂ type, Fak-fak (*Pratt*), 1 ♀. *Exp.* ♂ 38, ♀ 40 millim.

Sect. II. Antennæ of male with fascicles of moderate cilia.

A. Fore wing with the costa not truncate towards apex, the termen evenly curved.
- *a*. Fore wing with the postmedial line angled outwards to termen at submedian fold ..... *pulchra*.
- *b*. Fore wing with the postmedial line not angled outwards to termen at submedian fold.
  - a^1. Fore wing with greenish grey patch on postmedial area below costa ..... *glaucograpta*.
  - b^1. Fore wing without greenish grey patch on postmedial area below costa.
    - a^2. Fore wing with the postmedial line strongly dentate below discal fold.
      - a^3. Fore wing with oblique dentate black streak from apex to postmedial line at discal fold ..... *exacta*.
      - b^3. Fore wing without oblique dentate black streak from apex ..... *turneri*.
    - b^2. Fore wing with the postmedial line not strongly dentate below discal fold.
      - a^3. Hind wing without postmedial line.
        - a^4. Fore wing with the costal area white beyond the antemedial line ..... *costipallens*.
        - b^4. Fore wing with the costal area not white beyond the antemedial line.
          - a^5. Fore wing with the postmedial line not bent inwards below vein 4 to lower edge of reniform.
            - a^6. Fore wing grey suffused with fuscous, the costal half beyond antemedial line red-brown ..... *candezei*.
            - b^6. Fore wing brown and grey.
              - a^7. Fore wing with the outer edge of reniform angled outwards at middle ..... *inexacta*.
              - b^7. Fore wing with the reniform constricted at middle ..... *cerussata*.
          - b^5. Fore wing with the postmedial line bent inwards below vein 4 to lower edge of reniform ..... *aroa*.
      - b^3. Hind wing with postmedial line ..... *hades*.

6648. **Gadirtha pulchra.** (Plate CLXXXIII. fig. 23.)

Gadirtha pulchra, Butl. Trans. Ent. Soc. 1886, p. 412; Semper, Reise Phil., Schmett. ii. p. 528, pl. lx. f. 7.

♀. Head, thorax, and abdomen grey-white slightly tinged with brown; palpi with the 2nd joint blackish at sides; vertex of head with black line; tegulæ with black medial line; tips of tegulæ and metathorax with some black scales; fore tibiæ and tarsi ringed with black, the mid tibiæ ringed with black and the tarsi black

above; abdomen with the crests blackish at tips and with black line before anal tuft. Fore wing white tinged with brown and striated with fuscous; antemedial line double, the inner line black and slightly curved, the outer line faint and sinuous; orbicular faint, pinkish, with some raised scales in centre; reniform with brownish centre with ridge of raised scales in it and slight whitish annulus defined by black; postmedial line strongly bent outwards and hardly traceable below costa, then double and filled in with white, almost obliterated by an oblique black line from costa to termen at submedian fold, bent inwards at vein 3 to below end of cell, then somewhat oblique to inner margin and with short black streak beyond it at vein 1, some slight black marks beyond it on costa and an oblique wedge-shaped black mark below costa; subterminal line very indistinct, white, excurved below vein 7 and at middle; a terminal series of slight black lunules. Hind wing white, the veins of terminal half and the terminal area suffused with fuscous brown narrowing to a point at vein 1; cilia white; the underside with diffused brownish patch at middle of costal area.

Ab. 1. Thorax and costal half of medial area of fore wing suffused with fuscous.

Hab. Travancore, Pirmád (*Imray*), 1 ♀; Ceylon, Puttalam (*Pole*), 2 ♀; Philippines, Luzon; Queensland, Rockhampton, 1 ♀ type, Brisbane (*Turner*), 2 ♀. *Exp.* 46–54 millim.

6649. **Gadirtha glaucograpta**, n. sp. (Plate CLXXXIII. fig. 24.)

♂. Head and thorax red-brown mixed with some whitish and dark brown, the tegulæ and base of patagia tinged with green, palpi with the 2nd joint black at sides; pectus and legs ochreous, the fore and mid tarsi ringed with black; abdomen ochreous dorsally suffused with brown, the crests with some dark brown mixed. Fore wing ochreous tinged with pink, suffused with brown and irrorated with black; antemedial line black towards costa, then white, angled outwards below costa, then oblique and minutely waved to submedian fold, and strongly excurved above inner margin, a moss-green patch before it on costal area and some green suffusion beyond it on inner area running obliquely from below submedian fold to tornus; a black streak in submedian fold from just beyond antemedial line to termen; a tuft of raised scales in middle of cell; reniform defined by blackish, rounded but produced to slight points at sides, a ridge of raised scales in centre; postmedial line indistinctly double, blackish, oblique from costa to vein 6, then dentate and inwardly oblique to inner margin, a patch of white tinged above with greenish grey beyond it below costa and some whitish points on costa; subterminal line pale defined on inner side by brown, waved, excurved at veins 7, 6; a brown terminal line with a fine white line before it. Hind wing ochreous suffused with fuscous brown especially towards termen; two

oblique black bars at inner margin towards tornus, the outer defined by white on outer side; cilia with some blackish striæ at base and some black at tips towards tornus; the underside ochreous with small dark discoidal spot and diffused curved rather maculate postmedial and subterminal lines.

♀. Fore wing with some white on middle of inner margin; hing wing with more white towards tornus.

Ab. 1. Fore wing with the patches before and beyond antemedial line and beyond the postmedial line leaden grey.

Hab. Sierra Leone (*Bartlett*), 1 ♀; Gold Coast, Kumasi (*Whiteside*), 1 ♂, 1 ♀ type. *Exp.* 42–46 millim.

6650. Gadirtha exacta. (Plate CLXXXIII. fig. 27.)

Gadirtha exacta, Semper, Reise Phil., Schmett. ii. p. 527, pl. lx. f. 6 (1900).
Gadirtha sara, Swinh. A. M. N. H. (7) vii. p. 489 (1901).

Head and thorax red-brown mixed with ochreous; palpi ochreous white with some black at side of 2nd joint and towards extremity of 3rd joint; tarsi blackish ringed with white; abdomen greyish ochreous suffused with brown, the crests blackish at tips. Fore wing ochreous tinged with rufous, variegated with red-brown and irrorated with black; fine blackish streaks above subcostal nervure and vein 1 from base to the antemedial line, which is indistinctly double, waved, angled inwards below the cell and on vein 1 and outwards above inner margin almost to the postmedial line; a tuft of black scales in middle of cell; reniform defined by blackish, rounded with its outer edge produced to a point in discal fold, its centre with some red-brown suffusion and tuft of scales; postmedial line double towards costa, oblique to discal fold, then waved, bent inwards in submedian fold and angled outwards at vein 1, the veins beyond it streaked with black, the costa with slight white points with black streaks between them; an oblique dentate black streak from apex to the postmedial line at discal fold, angled inwards below vein 7 and outwards at vein 6, some white suffusion above it; a faint pale subterminal line defined on inner side by red-brown suffusion, incurved below vein 2; a fine waved blackish terminal line. Hind wing ochreous white, the terminal area broadly fuscous with a slight curved dark postmedial line just before its inner edge with a black bar on it at inner margin and some red-brown scales on extremity of vein 1; cilia reddish ochreous; the underside with blackish discoidal spot showing through to upperside.

Ab. 1. Fore wing with black-brown suffusion in, below, and beyond lower end of cell to postmedial line.

Ab. 2. Patagia tinged with olive-green; fore wing much more uniform brown faintly tinged with olive-green.

Hab. Philippines, Cebu; Talaut Is. (*Doherty*), 1 ♂ type *sara*; Dutch N. Guinea, Fak-fak (*Pratt*), 2 ♂; Br. N. Guinea, Port Moresby, 1 ♀, Ekeikei (*Pratt*), 1 ♂, Mt. Kebea (*Pratt*), 3 ♂, 2 ♀. *Exp.* 36–46 millim.

*6651. Gadirtha turneri. (Plate CLXXXIII. fig. 28.)

Ochthophora turneri, Beth.-Baker, Nov. Zool, xiii. p. 220 (1906).

♀. Head and thorax grey mixed with dark brown; palpi pale grey with black stripe at side of 2nd joint, the extremity of 3rd joint black; tegulæ with black medial line, the tips dark brown; metathoracic crest mostly dark brown; fore tarsi black; abdomen grey-brown. Fore wing grey tinged with red-brown, the antemedial area suffused with black especially towards costa; antemedial line fine, black, dentate, angled inwards on median nervure and vein 1 and outwards in submedian fold; orbicular a small tuft of rufous scales defined by whitish; reniform fuscous with whitish annulus defined by black, its inner edge angled inwards in discal fold and its outer outwards to postmedial line, a small tuft of rufous scales defined by whitish in centre; postmedial line fine, double filled in with whitish, the outer line indistinct, bent outwards below costa, incurved at vein 6, then strongly dentate and bent inwards below vein 3; subterminal line pale, diffused, waved, almost obsolete towards costa, then defined on inner side by small dentate brown marks; a terminal series of black striæ; cilia pale rufous. Hind wing whitish tinged with brown especially on terminal area; the underside with the costal and terminal areas tinged with brown.

Hab. Br. New Guinea, Babooni (*Pratt*), type † ♀ in Coll. Bethune-Baker. *Exp.* 40 millim.

*6652. Gadirtha costipallens. (Plate CLXXXIII. fig. 8.)

Gadirtha costipallens, Beth.-Baker, Nov. Zool. xiii. p. 220 (1906).

♀. Head and thorax white tinged with red-brown, the tegulæ and patagia pale grey-green, the latter above and the metathorax behind edged with brown; abdomen white tinged with brown. Fore wing pale red-brown mixed with pale grey-green, the costal area white slightly irrorated with brown from antemedial line to apex; a black streak below the cell from base to below origin of vein 2; subbasal line black defined by whitish on outer side, acutely angled outwards below costa and ending at subcostal nervure, a diffused black patch beyond it below costa; antemedial line indistinct, double, angled inwards below costa and obsolete below the cell; orbicular represented by a black point; reniform defined by black, its outer edge produced to a point and with a slight ridge of raised scales in middle with some rufous beyond it; diffused wedged-shaped black streaks beyond upper and lower angles of cell; postmedial line obliquely downcurved from costa to vein 7, excurved to vein 6, incurved at vein 5, then again excurved and angled outwards in submedian fold, then strongly incurved; a faint dentate subterminal line with an oblique blackish streak to it

from termen below apex. Hind wing greyish tinged with fuscous brown, the costal and terminal areas suffused with fuscous; a blackish point at lower angle of cell; the termen with some whitish suffusion; cilia whitish mixed with brown; the underside whitish, the costal and terminal areas suffused with brown, a slight diffused discoidal lunule.

Hab. Br. New Guinea, Ekeikei (*Pratt*), type † ♀ in Coll. Bethune-Baker. *Exp.* 44 millim.

6653. Gadirtha candezei.

Gadirtha candezei, Druce, Biol. Centr.-Am., Het. ii. p. 508, pl. 96, f. 17 (1898).

♀. Head grey with some ochreous on vertex and basal joint of antennæ; palpi ochreous white, the 2nd joint black at sides towards base and with the fringes of hair above grey, some grey towards extremity of 3rd joint; thorax ochreous irrorated with black, the patagia grey; fore and mid legs grey, the fore tibiæ with some ochreous, pectus and hind legs white, the tarsi ringed with black; abdomen grey, whitish at base and with the large crests on basal segments rufous, the ventral surface white. Fore wing grey suffused with fuscous, the costal area red-brown irrorated with black from the antemedial line, where it extends to below the cell, narrowing to termen below apex; the costa with blackish striæ and points, the medial part of inner margin with blackish and ochreous striæ; antemedial line indistinct, inwardly oblique, minutely waved; small tufts of raised scales at middle of cell and on discocellulars; postmedial line very indistinct, hardly traceable on costal area, bent outwards below costa, oblique and dentate below vein 4; subterminal line pale with patches of red-brown before and beyond it at middle and beyond it at tornus, waved, excurved at middle and bent inwards at vein 2; a terminal series of slight dark lunules. Hind wing semihyaline white slightly tinged with ochreous, the veins and costal and terminal areas suffused with fuscous brown; cilia white, brownish at base; the underside white, the costal and terminal areas suffused with brown.

Hab. Guatemala; Costa Rica, Juan Vinas (*Schaus*), 1 ♀, *Exp.* 58 millim.

6654. Gadirtha inexacta.

Gadirtha inexacta, Wlk. xiii. 1102 (1857); Hmpsn. Moths Ind. ii. p. 367.
Gadirtha impingens, Wlk. xiii. 1103 (1857).
Scolopocneme bufonia, Feld. Wien. Ent. Mon. vi. p. 38 (1862).
Checupa tinctoides, Snell. Tijd. v. Ent. xx. p. 71, pl. v. f. 6 (1877).

Head and thorax grey mixed with brown; palpi with the 2nd joint dark brown at sides except at extremity; fore tibiæ and tarsi with series of small black-brown spots in front; abdomen

whitish tinged with brown. Fore wing white suffused and striated with rufous and purple-brown, the inner area with more white; a dark brown patch on costa at the antemedial line, which is black, sinuous, bent inwards to inner margin and giving off at median nervure an oblique black line formed of raised scales to middle of inner margin; orbicular and reniform round with tufts of red-brown scales in centres, the former faintly defined by brown, the latter defined by black; postmedial line very indistinctly double, bent

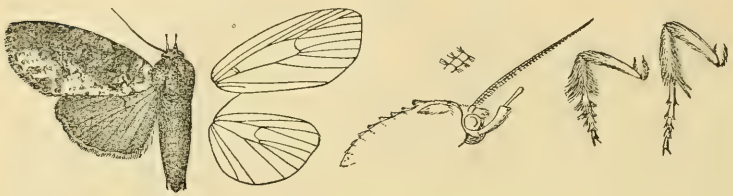


Fig. 125.—*Gadirtha inexacta*, ♂. ½.

outwards below costa, then minutely waved, at vein 2 bent inwards to lower edge of reniform and angled outwards at vein 1, a fuscous patch beyond it on costa; subterminal line indistinct, whitish, waved; a terminal series of small black spots and short streak in extremity of submedian fold. Hind wing whitish suffused with red-brown especially on terminal area; cilia ochreous white; the underside white slightly tinged with brown, a small discoidal spot, diffused subterminal shade, and lunulate terminal line.

Ab. 1. Fore wing more uniform greyish; hind wing uniform fuscous brown.—China, Formosa.

Ab. 2. Similar, but fore wing suffused with purple-brown, the tornal area grey-white from middle of termen to middle of inner margin.—Sikhim, Assam, Singapore.

Ab. 3. Similar, but hind wing ochreous white, the terminal area suffused with fuscous brown narrowing to a point at tornus.—N. Guinea.

Hab. Centr. China, Chusan Is. (*J. J. Walker*), 1 ♀, Hongkong (*Bowring*, *Betton*), 2 ♀, Ichang (*Mrs. Pratt*), 1 ♀; W. China, Changyang (*Pratt*), 1 ♀; Formosa (*Hobson*), 3 ♀; Sikhim (*Möller*), 3 ♀; Assam (*Badgley*), 1 ♀; "N. India" (*James*), 1 ♀; Burma, Moulmein (*Clerk*), 1 ♂, 1 ♀ type and type *impingens*; Singapore (*Ridley*, *Wood-Jones*), 2 ♂, 2 ♀; Borneo, Sarawak (*Wallace*), 2 ♀; Br. N. Guinea, Dinawa (*Pratt*), 2 ♀, Mafalu (*Pratt*), 1 ♀, Mt. Kebea (*Pratt*), 1 ♀, Babooni (*Pratt*), 1 ♀. *Exp.* 48–58 millim.

*6655. Gadirtha cerussata.

Scolopocneme cerussata, Feld. Reis. Nov. pl. 100. f. 11 (1874).

♀. Head and thorax red-brown mixed with some whitish, the patagia purplish grey; palpi with the 2nd joint whitish in front; pectus and legs grey, the fore tibiæ red-brown and whitish in front, the tarsi banded with brown; abdomen red-brown. Fore wing purplish grey mixed with whitish, the costal area red-brown slightly irrorated with black from near base to apex, extending at middle to submedian fold, the terminal area with red-brown patches in the interspaces; antemedial line black, oblique and slightly angled outwards on subcostal nervure from costa to median nervure, then indistinct, whitish and bent inwards to inner margin; orbicular and reniform large, defined by black and with tufts of raised black scales in centres, the former round, the latter constricted at middle; postmedial line arising at middle of costa, indistinct and strongly bent outwards below costa, then double, black and incurved at discal fold, below vein 5 purplish grey defined on outer side by white, oblique and waved; some black suffusion from subterminal line below costa to the reniform; subterminal line whitish defined on inner side by leaden fuscous except towards costa, waved; a terminal series of brown points. Hind wing fuscous brown tinged with grey; cilia grey tinged with brown; the underside grey suffused with reddish brown especially on terminal area.

Hab. ?, type † ♀ in Coll. Rothschild. *Exp.* 40 millim. The locality is given as "Asia" but the type is labelled "Guane."

*6656. Gadirtha aroa. (Plate CLXXXIII. fig. 16.)

Gadirtha aroa, Beth.-Baker, Nov. Zool. xv. p. 199 (1908).

♀. Head and thorax red-brown mixed with grey; the tarsi fuscous with pale rings; abdomen greyish tinged with red-brown, the crests darker. Fore wing grey suffused and irrorated with red-brown, the veins of terminal area with slight dark streaks; subbasal line blackish, oblique, sinuous, from costa to submedian fold; antemedial line double, blackish, oblique from costa to submedian fold, then inwardly oblique and angled outwards on vein 1, a grey patch beyond it in cell and another beyond lower angle of cell; reniform dark-brown, ill-defined, its lower extremity produced; medial line slight, dark, from costa to reniform, slightly angled outwards below costa; postmedial line double, the outer line very indistinct, obliquely excurved and minutely waved from costa to vein 4, then curved downwards and bent inwards to lower edge of reniform, and dentate to inner margin; subterminal line very indistinct, dark, dentate; a crenulate black terminal line with dark streaks beyond it on the cilia. Hind wing yellowish suffused with red-brown, the costal and terminal areas darker; cilia

yellowish white; the underside pale yellow, the terminal area suffused with brown.

Hab. Br. N. Guinea, Aroa R., type † ♀ in Coll. Bethune-Baker. *Exp.* 50 millim.

*6657. Gadirtha hades. (Plate CLXXXIII. fig. 15.)

Gadirtha hades, Lower, Tr. R. Soc. S. Austr. xxvii. p. 36 (1903).

♀. Head and thorax reddish brown mixed with pale ochreous; tarsi banded black and pale ochreous; pectus and abdomen brownish grey. Fore wing reddish brown suffused with fuscous; the antemedial line somewhat dentate, oblique from costa to submedian fold, then angled inwards on vein 1 and with a broad oblique pale band beyond it extending on inner margin to subterminal line; an indistinct discoidal spot; postmedial line indistinct, oblique from costa to vein 6, excurved to vein 2 and strongly dentate inwards in submedian fold and on vein 1; traces of a subterminal line, more distinct and dentate towards costa, where it is crossed by two slight black streaks; a fine crenulate terminal line. Hind wing ochreous tinged with brown; a slight discoidal lunule; an indistinct postmedial line angled outwards below vein 2; the terminal area fuscous with ochreous patch on termen below middle; cilia ochreous with series of brownish spots. Underside ochreous with discoidal lunules, the postmedial line distinct and somewhat maculate on hind wing; a broad fuscous band beyond it and a terminal series of points.

Hab. Queensland, Mackay, type † ♀ in Coll. Lower. *Exp.* 38 millim.

B. Fore wing with the costa slightly truncate towards apex, the termen excurved at middle and oblique towards tornus.
  a. Fore wing olive-green.
    *a*¹. Fore wing with the postmedial line double ..... *cuprescens.*
    *b*¹. Fore wing with the postmedial line single ..... *elongata.*
  b. Fore wing not green ..... *poliochroa.*

6658. Gadirtha cuprescens, n. sp.

♂. Head and thorax ochreous mixed with red-brown; tegulæ green at base, red-brown at tips; patagia green mixed with red-brown, the metathoracic crest tipped with dark brown; abdomen grey suffused with brown, the crests dark at tips; palpi black at sides towards base and white in front; pectus, legs, and ventral surface of abdomen white, the fore and mid tibiæ greenish, the tarsi black ringed with white. Fore wing olive-green largely suffused with cupreous red-brown, the apical area with some red-brown suffusion; antemedial line very indistinct, double, waved; a small tuft of black scales in middle of cell and large discoidal annulus defined by red-brown and with small tuft of scales in centre; medial line indistinct, brown, waved, excurved

round end of cell; postmedial line double, minutely waved, excurved to vein 4, then oblique; subterminal line faint, whitish, minutely waved, defined on inner side by cupreous brown spots except towards costa; the veins of terminal area slightly streaked with black; a terminal series of small brown lunules; cilia brown.

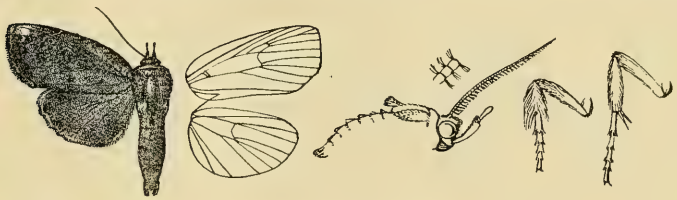


Fig. 126.—*Gadirtha cuprescens*, ♂. ½.

Hind wing fuscous brown; cilia paler with a blackish mark towards tornus; the underside brownish white, the costal and terminal areas suffused with fuscous, an indistinct dark discoidal spot.

Ab. 1. Fore wing with antemedial patch of black suffusion from costa to below cell, a wedge-shaped mark below costa beyond the postmedial line and spot at discal fold.

Hab. N. Guinea, Fak-fak (*Pratt*), 2 ♂ type. *Exp.* 40 millim.

6659. Gadirtha elongata. (Plate CLXXXIII. fig. 21.)

Plotheia elongata, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 451 (1897).

♀. Head and thorax ochreous mixed with brown; tegulæ and patagia olive-green, the former tipped with ochreous and brown; abdomen greyish ochreous suffused with brown; pectus, legs, and ventral surface of abdomen ochreous, the fore tibiæ fringed with green hair on outer side. Fore wing olive-green irrorated with some white and pale rufous; subbasal line represented by a brown striga from costa; antemedial line indistinct, double, waved; a tuft of rufous scales in middle of cell and a large discoidal annulus slightly defined by rufous and with tuft of rufous scales in centre: a blackish striga from middle of costa; postmedial line black and oblique from costa to vein 7, then minutely waved, oblique below vein 4 and with tufts of scales on it above and below vein 1, an oblique black streak beyond it below costa and some small black spots on costa towards apex; subterminal line slight, white, curved, with rufous spots on its inner side except towards costa; a fine waved terminal red-brown line; cilia ochreous mixed with fuscous. Hind wing fuscous; the cilia pale reddish brown; the underside whitish tinged with brown, the costal and terminal areas suffused with brown.

Hab. Assam, Khásis, 1 ♀ type. *Exp.* 46 millim.

6660. **Gadirtha poliochroa**, n. sp. (Plate CLXXXIII. fig. 9.)

♀. Head and thorax grey, the tegulæ and patagia with patches of purple-brown; fore tibiæ with brown spots, the tarsi banded with brown; abdomen whitish, dorsally suffused with brown, the crests black at tips. Fore wing grey-white mostly suffused with purple-brown leaving the inner area and an apical patch grey-white; two subbasal dark striæ from costa; antemedial line indistinct, double, minutely waved, an angled white mark before it from costa and a blackish spot defined by whitish in the cell; a bar-shaped tuft of raised scales in middle of cell; a large, round discoidal annulus defined by brown and with tuft of brown scales in centre; postmedial line brown, bent outwards below costa, and below vein 2 with a series of three steps to inner margin near antemedial line, the steps marked by bars of raised scales; subterminal line whitish, dentate, with tufts of raised rufous scales on its inner side except towards costa; a terminal series of rufous lunules formed of raised scales. Hind wing whitish suffused with brown, the terminal area darker; cilia brownish white; the underside whitish with the costal and terminal areas suffused with brown.

Ab. 1. Thorax with hardly a trace of purple-brown; fore wing grey-white with a patch of purple-brown suffusion on antemedial costal area.

Hab. Queensland, Brisbane (*Turner*), 2 ♀ type. *Exp.* 30–40 millim.

Genus **CASANDRIA**.

	Type.
Casandria, Wlk. xi. 606 (1857)	*emittens.*
Motya, Wlk. xix. 1021 (1859)	*abseuzalis.*
Lussa, Grote, Can. Ent. xv. p. 127 (1883)	*abseuzalis.*
Leianophera, Möschl. Abh. Senck. Ges. xvi. p. 136 (1900)	*transfossa.*
Collomena, Möschl. Abh. Senck. Ges. xvi. p. 145 (1900)	*elota.*
Pleurasympieza, Möschl. Abh. Senck. Ges. xvi. p. 146 (1900)	*abseuzalis.*
Neostictoptera, Druce, A. M. N. H. (7) v. p. 519 (1900)	*nigropuncta.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about vertex of head and slightly fringed with hair above towards extremity, the 3rd short, porrect; frons smooth; eyes large, round; antennæ of male typically ciliated; thorax clothed almost entirely with scales and without crests; fore tibiæ fringed with long hair, the mid tibiæ moderately fringed with hair, the hind tibiæ smoothly scaled; abdomen with slight crests on medial segments, slight lateral tufts of scales and the anal tuft large in male. Fore wing rather long and narrow, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long narrow areole; 11 from cell; the retinaculum a corneous bar curled round the frenulum. Hind wing with vein 3 from just before angle of cell; 4, 5 from angle or shortly stalked; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

Sect. I. Antennæ of male bipectinate with long branches, the apex ciliated, a large tuft of hair from basal joint.

6661. Casandria ferrocana.

Laphygma ferrocana, Wlk. xi. 720 (1857).
Laphygma nigriscripta, Wlk. xxxii. 649 (1865).

Head, thorax, and abdomen white mixed with some pinkish; palpi with some black and pink scales at side of 2nd joint; tegulæ with dark medial line; abdomen with lateral series of black points, sublateral bars at base and three ventral streaks. Fore wing white more or less suffused with pinkish except on costal area; an obliquely curved subbasal black striga from below costa to vein 1, followed by another oblique black striga; antemedial line black, dentate at discal and submedian folds and vein 1, with slight pinkish marks before it at costa and submedian fold; reniform with pinkish spot in centre and defined by black, its inner edge produced to a point

Fig. 127.—*Casandria ferrocana*, ♂. ½.

in discal fold; a black striga from middle of costa and some points on terminal half; postmedial line black with a diffused pinkish line beyond it, arising below costa, dentate below discal fold and produced inwards to a long tooth in submedian fold, a curved black mark beyond it from costa; a diffused dentate pinkish subterminal shade; a series of black points just before termen. Hind wing semihyaline white tinged with brown especially on the veins and terminal area.

Hab. Jamaica (*Gosse, Kaye*), 1 ♂, 2 ♀ type, Runaway Bay (*Walsingham*), 1 ♀; Cuba, Santiago (*Schaus*), 1 ♀; Haiti (*Tweedie*), 1 ♀ type *nigriscripta*. *Exp.* 26–30 millim.

Sect. II. Antennæ of male ciliated, a large tuft of hair from basal joint.

A. (*Neostictoptera*). Fore wing of male with tuft of long flocculent hair below the cell on underside; hind wing with the apex truncate, a large patch of flocculent hair on upperside below costa beyond the cell, the inner area greatly dilated and the tornus lobed.

6662. Casandria nigropuncta.

Neostictoptera nigropuncta, Druce, A. M. N. H. (7) v. p. 519 (1900).

Head and thorax white mixed with purplish pink; palpi with the 2nd joint black at sides; antennæ with the tuft from basal joint with black mixed; tegulæ with strong black line near base; fore and mid tarsi black ringed with white; abdomen white mixed with black and pinkish, some black scales in the lateral tufts, the ventral surface yellowish with sublateral and ventral black streaks

on basal segments. Fore wing ochreous white slightly irrorated with black; slight subbasal black points below costa and cell and on vein 1; the basal area with three irregular diffused pink lines; antemedial line black, minutely dentate to just below the cell, then incurved; reniform with pink spot in centre and elliptical black annulus; postmedial line black, strongly bent outwards below costa, then oblique, dentate and strongly angled inwards in submedian fold, some black points beyond it on costa and two diffused dentate

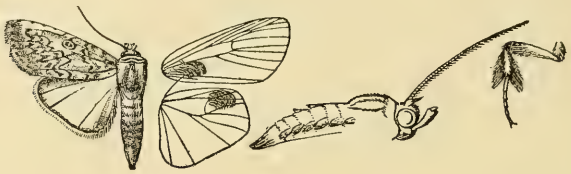


Fig. 128.—*Casandria nigropuncta*, ♂. ½.

pink lines except towards costa; the terminal area suffused with pink and more strongly irrorated with black; a series of small black spots just before termen. Hind wing semihyaline white, the termen suffused with brown, the inner margin clothed with brown hair; the underside with the costal area brownish, the patches of flocculent hair on underside of fore wing and upperside of hind wing black.

♀. Hind wing with more fuscous suffusion on terminal area; the extremity of abdomen broad and suffused with fuscous.

Hab. Costa Rica, Juan Vinas; Colombia, Minca (*H. H. Smith*), type† ♂, ♀ in Coll. Druce; Venezuela, Merida (*Briceno*); Brazil, Organ Mts., Tijuca (*Wagner*), 1 ♂. *Exp.* 36 millim.

B. Fore wing of male without tuft of hair on underside; hind wing with the apex truncate, the upperside with thick longitudinal ridges of scales below costa and vein 7 and above vein 5, the inner area dilated but the tornus not lobed.

6663. **Casandria melanographa**, n. sp.

♂. Head and thorax ochreous, the tips of tufts on basal joint of antennæ, the tips of tegulæ, the upper edge of patagia and a band near their base black; palpi with the 2nd joint black above; fore tibiæ on inner side and the tarsi black ringed with white; abdomen blackish with some ochreous at base and reddish towards extremity, the ventral surface ochreous with some black scales and three short black streaks at base and on anal tuft. Fore wing brownish white tinged with brick-red except on terminal half of costal area; a diffused waved subbasal black line from costa to vein 1 near base; antemedial line black, oblique, slightly angled outwards below costa, the medial line just beyond it, black and irregularly dentate; reniform defined by black, large, round with its inner

edge slightly indented, a small black spot in it at lower angle of cell, too rather diffused black annuli beyond it with slightly dentate outer edges; postmedial line black, touching upper edge of reniform, strongly bent outwards below costa, slightly dentate at veins 4, 3, then bent inwards to lower edge of reniform, then closely approximated to medial line and slightly angled inwards at submedian fold, some small black spots beyond it on costa;

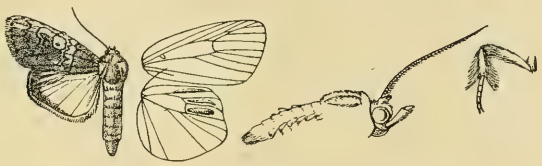


Fig. 129.—*Casandria melanographa*, ♂. ½.

subterminal line black, dentate below costa and at veins 7, 6, then minutely waved, excurved at middle, and bent inwards at vein 2 to below end of cell; a series of small wedge-shaped black spots just before termen; cilia chequered fuscous and whitish. Hind wing semihyaline white, the termen, inner margin and cilia tinged with fuscous, the ridges of scales ochreous; the underside with the costal half suffused with fuscous.

Hab. Br. Guiana, Potaro R. (*Kaye*), 1 ♂ type. *Exp.* 32 millim.

C. Wings of male without tufts of hair or ridges of scales.

a. Hind wing of male with the tornus slightly lobed, veins 4, 5 shortly stalked, the discocellulars almost obsolete.

6664. **Casandria amplipennis**, n. sp.

Head and thorax white mixed with brown and reddish ochreous; palpi with the 2nd joint black above; tegulæ with black band near base; fore and mid tibiæ and tarsi banded with black; abdomen ochreous mixed with black, the base white with some blackish at

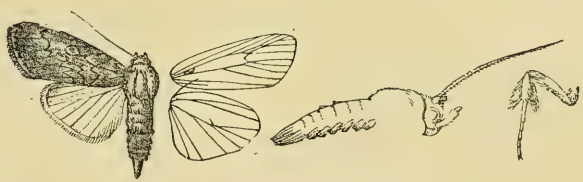


Fig. 130.—*Casandria amplipennis*, ♂. ½.

sides, a lateral series of black points, the ventral surface white mixed with rufous, three short black streaks at base and two on anal tuft. Fore wing white irrorated with brown and with some pink suffusion on antemedial and terminal areas; subbasal line slight, black, dentate, from costa to vein 1; antemedial line black, strongly angled outwards in cell and slightly in submedian fold,

then angled inwards and oblique to inner margin; reniform white defined by black and with pink spot in centre, round; medial line represented by a black striga from costa and slight oblique dentate line from beyond lower angle of cell to inner margin at antemedial line; postmedial line black, strongly bent outwards below costa, then oblique, dentate, strongly angled inwards above vein 1 and outwards on it; some small black spots beyond it on costa; subterminal line indistinct, reddish, obsolete towards costa, excurved below vein 7 and at middle and incurved at vein 2; a series of small black spots just before termen. Hind wing semihyaline white, the costa and termen tinged with brown especially in female.

Hab. Brazil, São Paulo (*D. Jones*), 1 ♂, 1 ♀ type, Rio Janeiro *Exp.* 36–38 millim.

b. Hind wing of male with the tornus not lobed; veins 4, 5 from cell.
  a^1. Fore wing tinged with green; hind wing semihyaline with the terminal area suffused with fuscous.
    a^2. Fore wing without subterminal series of black spots ..... *olivaris.*
    b^2. Fore wing with subterminal series of black spots. *chlorotica.*
  b^1. Fore wing purplish fuscous and pale red; hind wing wholly fuscous ..... *purpurascens.*

*6665. Casandria olivaris. (Plate CLXXXIII. fig. 10.)

Casandria olivaris, Dyar, ined.

♀. Head whitish mixed with olive-green; palpi black above towards base and with the 3rd joint blackish; antennæ blackish; thorax olive-green mixed with brown, the tegulæ with black line near base; pectus and legs whitish suffused with ochreous brown, the tarsi blackish ringed with white; abdomen white tinged with ochreous, dorsally suffused with brown except at base. Fore wing olive-green, the inner half except on basal area and the terminal area except at apex irrorated with brown; a sinuous black subbasal line from costa to submedian fold; antemedial line fine, black, dentate and inwardly oblique; reniform defined by black, produced to points on inner and outer sides and with black spot in centre; postmedial line black, strongly bent outwards and almost obsolete below costa, then dentate, at vein 3 bent inwards to lower angle of cell, bent outwards above vein 1, then again inwards, a prominent oblique black bar beyond it from costa; an indistinct waved whitish subterminal line defined on inner side by slight dentate black marks; the termen with series of black points from apex to vein 4. Hind wing whitish tinged with brown, the veins and terminal area suffused with brown; cilia white tinged with brown; the underside white tinged with brown especially on costal and terminal areas.

Hab. Mexico, Misantla, type † ♀ in U.S. Nat. Mus. *Exp.* 32 millim.

6666. Casandria chlorotica.

Casandria chlorotica, Schaus, A. M. N. H. (8) vi. p. 205 (1910).

Head and thorax whitish tinged with pale red and olive-green; palpi with the 2nd joint black above; tegulæ with black lines near base and at tips; fore and mid tibiæ with black points, the tarsi banded with black. Fore wing whitish tinged with pale red and olive-green and irrorated slightly with black; the base of subcostal nervure streaked with black; subbasal line black, waved, from costa to submedian fold; antemedial line black, strongly excurved in cell, then waved; reniform defined by black, very large and rounded; a faint oblique shade from middle of costa and a diffused oblique waved line from vein 6 beyond the cell to middle of inner margin; postmedial line black, touching the reniform and strongly bent outwards below costa, then dentate, very oblique below vein 4 to inner margin near the medial and antemedial lines, a faint red

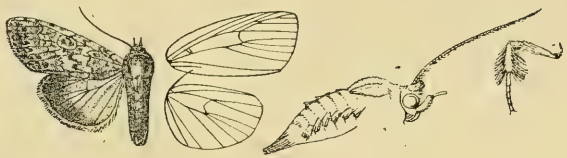


Fig. 131.—*Casandria chlorotica*, ♂. ½.

band beyond it, and some small black spots on costa; subterminal line whitish, minutely waved, defined on inner side by somewhat dentate black marks and spot at submedian fold, and on outer side by small blackish spots; a terminal series of small black spots. Hind wing semihyaline whitish, the veins and terminal area suffused with fuscous brown; cilia ochreous white.

Hab. Costa Rica, Juan Vinas (*Schaus*), 2 ♂; Colombia, Rio Derg in Coll. Druce. *Exp.* ♂ 36, ♀ 40 millim. Type † ♂, ♀ in U.S. Nat. Mus.

*6667. Casandria purpurascens. (Plate CLXXXIII. fig. 17.)

Casandria purpurascens, Schaus, Proc. Ent. Soc. Wash. xiii. p. 42 (1911).

♀. Head brown mixed with ochreous; palpi brown behind, whitish in front; thorax dark brown mixed with grey-white, the tegulæ with whitish patch at base; pectus and legs ochreous and brown, the fore and mid tarsi dark brown ringed with ochreous; abdomen brown mixed with grey, the anal tuft with some ochreous. Fore wing reddish ochreous irrorated with purplish red and suffused with purplish fuscous and grey except on basal area and inner half of postmedial area; a slight waved red subbasal line from costa to vein 1; antemedial line dark slightly defined on inner side by ochreous, waved; reniform reddish ochreous defined by dark brown and with

slight brown and whitish mark in centre, produced to a point on inner side; postmedial line double, purplish red filled in with ochreous, slightly bent outwards below costa, then waved, oblique below discal fold, an ochreous point beyond it on costa; subterminal line ochreous and oblique towards costa, then grey and waved; the apical area with ochreous streaks on veins 8 and 7 and black streaks in the interspaces and below them, the streak below vein 8 extending to the postmedial line. Hind wing dark brown; the cilia white at tips; the underside uniform greyish brown.

Hab. Costa Rica, Sixola R. (*Schaus*), type † ♀ in U.S. Nat. Mus. *Exp.* 36 millim.

Sect. III. Antennæ of male ciliated, without tuft of hair from basal joint.

A. Fore wing with subterminal series of small black spots and larger spot in submedian interspace.
  a. Hind wing semihyaline, the veins of terminal area and the termen fuscous ..... *abseuzalis.*
  b. Hind wing uniformly suffused with fuscous brown ..... *arcuata.*
B. Fore wing without subterminal series of black spots.
  a. Hind wing with the terminal area suffused with fuscous.
    a^1. Fore wing not tinged with crimson.
      a^2. Fore wing suffused with dark cupreous brown; hind wing of male uniform fuscous brown ..... *metaphæa.*
      b^2. Fore wing pale yellowish brown; hind wing of male semihyaline.
        a^3. Fore wing broad, the reniform moderate, elliptical ..... *chirica.*
        b^3. Fore wing narrow, the reniform very large and produced to points in front and behind..... *steniptera.*
      c^2. Fore wing grey suffused with purple-brown ..... *aræa.*
    b^1. Fore wing with the antemedial, postmedial, and terminal areas tinged with crimson..... *hæmatopis.*
  b. Hind wing with fine terminal black line or series of minute streaks.
    a^1. Fore wing with the antemedial line oblique to submedian fold where it is bent inwards.
      a^2. Fore wing suffused with brown and with white shade beyond postmedial line ..... *filifera.*
      b^2. Fore wing white slightly irrorated with black ..... *stroca.*
    b^1. Fore wing with the antemedial line erect, slightly excurved below costa and incurved below submedian fold ..... *elota.*
    c^1. Fore wing with the antemedial line erect to submedian fold, then oblique and waved..... *leucopis.*

6668. Casandria abseuzalis.

Motya abseuzalis, Wlk. xix. 1022 (1859).
Lussa nigroguttata, Grote, Can. Ent. xv. p. 127 (1883); Smith, Cat. Noct. N. Am. p. 167.
Pleurasympieza smithii, Möschl. Abh. Senck. Ges. xvi. p. 147, f. 18 (1890).
Stictoptera tumidicosta. Hmpsn. Trans. Ent. Soc. 1898, p. 249, pl. 17. f. 5.

Head, thorax, and abdomen white tinged with pale rufous; palpi with the 2nd joint black above; tegulæ with black medial line and some black at tips; patagia with black medial bars; fore

and mid tibiæ with black spot, the tarsi black ringed with white; abdomen with dorsal black lines on 3rd and 4th segments, a double black spot towards extremity and some black at side of anal tuft, the ventral surface with sublateral series of oblique black striæ. Fore wing white suffused with pale reddish ochreous; subbasal line black, oblique, dentate, from costa to submedian fold;

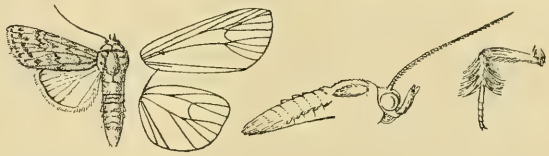


Fig. 132.—*Casandria abseuzalis*, ♂. ½.

antemedial line slight, black, oblique, dentate, small black spots beyond it in and below cell; a small black discoidal spot with white centre; postmedial line black, bent outwards below costa, then dentate, at vein 3 bent inwards to below end of cell; a subterminal series of small black spots with larger spot at submedian fold; a terminal series of black points. Hind wing semihyaline white, the veins towards termen and the termen fuscous black; cilia white.

Fore wing of male with the costa very slightly excised towards base and arched beyond middle; veins 2, 3 from a point towards end of cell.

Hab. U.S.A., Florida, 1 ♂; Bahamas, Nassau (*Sir G. Carter*), 1 ♂; Cuba, Tanamo (*Schaus*), 2 ♂, 1 ♀, Santiago (*Schaus*), 1 ♀; Porto Rico; Grenada (*H. H. Smith*), 1 ♂, 1 ♀ type *tumidicosta*; Brazil, 1 ♀, Bahia, 1 ♀, Rio Janeiro, type † in Mus. Oxon. *Exp.* 30 millim.

6669. **Casandria arcuata.** (Plate CLXXXIII. fig. 18.)

Casandria arcuata, Schaus, A. M. N. H. (8) vi. p. 205 (1910).

♂. Head and thorax grey mixed with pale rufous and brown; palpi with the 2nd joint blackish at sides; abdomen ferruginous towards extremity, grey-brown towards base, the male with small paired black spots on penultimate segment above and below. Fore wing pale brown with a faint olive tinge and brown suffusion; traces of a waved dark antemedial line; a blackish discoidal bar; a faint oblique dark striga from middle of costa and waved line from vein 6 beyond the cell, very oblique below vein 4; postmedial line indistinct, dark, strongly bent outwards below costa, excurved at vein 6 and oblique below vein 4; a subterminal series of faint dark spots and a terminal series of points. Hind wing greyish uniformly suffused with fuscous brown.

♀. Head, thorax, and fore wing paler, the last with more prominent blackish subterminal spot in submedian fold.

Fore wing of male with the costa strongly excised towards base and arched beyond middle; fore tibiæ dilated.

Hab. Costa Rica, Avangarez (*Schaus*), 1 ♂, Guapiles (*Schaus*), type † ♂, ♀ in U.S. Nat. Mus. *Exp.* 28 millim.

6670. **Casandria metaphæa**, n. sp. (Plate CLXXXIII. fig. 11.)

♂. Head and thorax whitish mixed with rufous; palpi with some black at base of 2nd joint; patagia with black medial bar; fore tarsi blackish ringed with white; abdomen white dorsally suffused with rufous and with blackish towards extremity, the ventral surface whiter with paired series of black points. Fore wing white suffused and irrorated with cupreous brown, the costal area whiter; subbasal line black, inwardly oblique, from costa to submedian fold; antemedial line indistinctly double, the outer line black, oblique to submedian fold, then incurved; traces of an oblique waved medial line; reniform with cupreous brown centre and whitish annulus defined by black, round, an indistinct dark figure-of-eight shaped mark beyond it; postmedial line indistinctly double, the inner line black, strongly bent outwards below costa, where it is acutely angled, slightly dentate at veins 4, 3, then bent inwards to below extremity of reniform and oblique and dentate to inner margin, some black points beyond it on costa; subterminal line indistinct, whitish slightly defined on inner side by fuscous, dentate, angled inwards at discal fold and incurved below vein 2; a black terminal line. Hind wing uniform fuscous brown with a cupreous gloss; cilia white at tips.

♀. Hind wing hyaline, the veins and terminal area suffused with fuscous.

Hab. Costa Rica, Juan Vinas (*Schaus*), 1 ♀, Tuis (*Schaus*), 1 ♂; Panama, La Chorrera (*Dolby-Tyler*), 1 ♂ type. *Exp.* 34 millim.

6671. **Casandria chirica.** (Plate CLXXXIII. fig. 12.)

Casandria chirica, Schaus, Pr. U.S. Nat. Mus. xxx. p. 108 (1906).
Iscadia aperta, Druce, Biol. Centr.-Am., Het. ii. p. 474 (part.).

Head, thorax, and abdomen grey-white suffused with rufous; patagia with blackish bar at middle; fore and mid tarsi black ringed with white; ventral surface of abdomen white irrorated with fuscous and with sublateral series of black points. Fore wing white suffused with golden brown, the costal area whiter; subbasal line black, inwardly oblique, from costa to submedian fold; antemedial line black, oblique to submedian fold and incurved just below it; an indistinct waved medial line; reniform with brown centre and white annulus defined by black, round, an indistinct dark somewhat figure-of-eight-shaped mark beyond it; postmedial line black, strongly bent outwards below costa where it is acutely angled, slightly dentate at veins 4, 3 then bent inwards to below

the reniform and oblique and dentate to inner margin ; an indistinct dark dentate subterminal line slightly defined on outer side by whitish ; a black terminal line. Hind wing semihyaline white, the veins, termen, and inner margin suffused with fuscous brown ; cilia white ; the underside with the costal area fuscous brown.

Hab. Mexico, Jalapa (*Schaus*), type † ♂ in U.S. Nat. Mus. ; Costa Rica, Sta. Clara Valley (*Zurcher*), 1 ♀. *Exp.* 32–34 millim.

*6672. **Casandria steniptera.** (Plate CLXXXIII. fig. 13.)

Casandria steniptera, Schaus, Proc. Ent. Soc. Wash. xiii. p. 42 (1911).

♂. Head, thorax, and abdomen brown mixed with grey ; the anal tuft with some black. Fore wing long and narrow ; pale brown mixed with grey ; an indistinct brown subbasal line from costa to vein 1 ; antemedial line indistinct, dark, very oblique, waved ; reniform very large, faintly defined by brown, its inner and outer sides produced to slight points, a slight dark mark in centre ; a slight minutely waved dark postmedial line from costa to vein 3 ; subterminal line grey defined on inner side by a somewhat dentate fuscous shade, bent inwards below vein 3 ; a terminal series of minute dark spots slightly defined on inner side by whitish. Hind wing white tinged with brown, the terminal area suffused with brown ; cilia whitish ; the underside whitish, the costal and terminal areas suffused with brown.

Hab. Fr. Guiana, St. Jean Maroni (*Schaus*), type † ♂ in U.S. Nat. Mus. *Exp.* 22 millim.

*6673. **Casandria aræa.** (Plate CLXXXIII. fig. 14.)

Casandria aræa, Schaus, A. M. N. H. (8) viii. p. 211 (1911).

♀. Head, thorax, and abdomen purple-brown mixed with grey-white ; palpi in front and coxæ whitish. Fore wing grey-white suffused with purple-brown ; traces of a subbasal line angled outwards below costa and with minute dark spot below it on vein 1 ; traces of a curved antemedial line with diffused whitish patch beyond it in and below the cell with a small black spot on it in submedian fold ; a round white discoidal spot and traces of a waved line from lower angle of cell to inner margin ; a red-brown annulus beyond the cell, its outer edge forming part of the faint postmedial line, which is excurved below costa, then oblique ; some white points on costa towards apex ; a faint whitish subterminal line, excurved and minutely dentate at middle, then bent inwards at vein 2. Hind wing fuscous brown with a greyish tinge.

Hab. Costa Rica, Sixola R. (*Schaus*), type † ♀ in U.S. Nat. Mus. *Exp.* 24 millim.

6674. **Casandria hæmatopis**, n. sp. (Plate CLXXXIII. fig. 19.)

♀. Head and thorax grey-white mixed with fuscous black ; tegulæ ochreous white with some pale rufous scales ; pectus

ochreous white; abdomen grey-white mixed with fuscous, the base of dorsum ochreous and rufous and the segments with reddish ochreous dorsal lines. Fore wing grey-white mixed with fuscous, the basal half of submedian interspace tinged with pale crimson, short crimson streaks beyond the postmedial and subterminal lines; subbasal line slight, black, minutely dentate at subcostal and median nervures, then oblique to vein 1 near base; antemedial line almost obsolete on costal half, oblique from submedian fold to inner margin; reniform with crimson centre and whitish annulus defined by black, round; postmedial line blackish, strongly bent outwards below costa, then somewhat dentate, very oblique below vein 4 to inner margin close to antemedial line, some small blackish spots beyond it on costa; subterminal line defined on inner side by fuscous suffusion except towards costa, somewhat angled inwards below vein 3 and in submedian fold; a terminal series of slight blackish spots. Hind wing semihyaline white, the veins, area beyond the cell, termen and inner margin tinged with fuscous brown; cilia white; the underside with the costa tinged with brown.

♂. Hind wing rather darker.

Hab. San Salvador, ♂ in Coll. Dognin; Argentina, Tucuman, 1 ♀ type. *Exp.* 30 millim.

6675. **Casandria filifera.** (Plate CLXXXIII. fig. 20.)

Laphygma filifera, Wlk. xi. 719 (1857).
Laphygma inflexa, Morr. Proc. Ac. Nat. Sci. Phil. 1875, p. 65; Smith, Cat. Noct. N. Am. p. 168.

♂. Head, thorax, and abdomen brownish grey; palpi with the 2nd joint black above; tegulæ with rufous and black lines at base and middle; patagia with black bars at middle; tarsi blackish ringed with white; abdomen with some fuscous on ventral surface and sublateral black points on penultimate segment. Fore wing grey-white tinged with brown, the subterminal area nearly pure white; subbasal line black, angled outwards below costa, then oblique and sinuous to vein 1 near base; antemedial line black, oblique from below costa to submedian fold, then bent inwards and slightly excurved at vein 1; an indistinct waved medial line; postmedial line black, strongly bent outwards below costa where it is acutely angled, slightly dentate at veins 4, 3, then bent inwards to below the reniform and oblique and waved to inner margin; subterminal line only defined by a faint shade on its inner side, incurved below vein 3; a fine black terminal line. Hind wing uniform semihyaline white.

♀. Abdomen with slight segmental black lines on dorsum and on two terminal segments on ventral surface; fore wing with the subbasal and antemedial lines rufous at costa, and hind wing with minute black streaks on the extremities of veins and slight terminal brown line.

Hab. U.S.A., Florida, type † *inflexa* in Agric. Coll., Michigan; Bahamas, Andros (*Bonhote*), 1 ♂, 4 ♀; Haiti (*Tweedie*), 1 ♂ type. *Exp.* ♂ 32, ♀ 36 millim.

*6676. Casandria stroca. (Plate CLXXXII. fig. 30.)

Iscadia stroca, Schaus, Pr. U.S. Nat. Mus. xxx. p. 104 (1906).

Head and thorax white with some brown and black scales, palpi black at sides; tegulæ with black line at base and black tips at middle; tarsi brownish; abdomen white slightly tinged with brown. Fore wing silvery white sparsely irrorated with black, the costal edge black towards base; a slight black streak in cell near base with waved line from it to inner margin; subbasal line double, angled outwards below costa, then oblique waved; antemedial line double, excurved from below costa to submedian fold where it is bent inwards, then oblique to inner margin; orbicular absent; reniform round, defined by black and with slight brown centre; medial line slightly angled inwards below costa, then excurved, minutely waved and somewhat diffused; postmedial line strongly bent outwards below costa, excurved to vein 6, then oblique and angled outwards on veins 4, 3, then retracted to below angle of cell and waved to inner margin; an indistinct rather diffused brownish subterminal line, excurved below vein 7, then waved, bent inwards at vein 2; a terminal series of black points. Hind wing whitish tinged with pale brown; the underside with the costal area suffused with brown.

Hab. Brazil, Castro Paraña in Coll. D. Jones. *Exp.* 38 millim.

6677. Casandria elota. (Plate CLXXXII. fig. 31.)

Collomena elota, Möschl. Abh. Senck. Ges. xvi. p. 145, f. 17 (1890).

♀. Head, thorax, and abdomen white mixed with rufous; palpi with some black at base of 2nd joint; tegulæ with rufous lines at base and middle; patagia with rufous bars at middle; mid tarsi blackish ringed with white; abdomen with sublateral series of black points. Fore wing white suffused and irrorated with brick-red; subbasal line blackish, oblique from below costa to vein 1 near base; antemedial line black, very slightly excurved below costa and incurved below submedian fold; reniform defined by black and with red spot in centre, round; postmedial line black, strongly bent outwards below costa where it is acutely angled, slightly dentate at veins 4, 3, then bent inwards to below the reniform and oblique and dentate to inner margin, the tooth in submedian fold extending to near the antemedial line; subterminal line defined on inner side by a maculate brown shade, incurved in submedian interspace; a black terminal line. Hind wing semihyaline white with minute fuscous streaks on the extremities of the veins.

Hab. Porto Rico; Sta. Lucia (*Cowie*), 2 ♀. *Exp.* 32 millim.

6678. **Casandria leucopis.** (Plate CLXXXII. fig. 32.)

Casandria leucopis, Schaus, A. M. N. H. (8) vi. p. 205 (1910).

♀. Head and thorax white mixed with some blood-red; tarsi blackish ringed with white; abdomen ochreous mixed with red and blackish. Fore wing white mixed with pale red and fuscous; antemedial line black, nearly straight and erect to submedian fold, then oblique and waved; reniform white with black annulus and a few brown scales in centre, round; postmedial line black on a pale red band, acutely angled outwards below costa, oblique and somewhat dentate below vein 4, a similar faint line before it; subterminal line diffused, white with a dentate blackish shade before it, excurved below vein 7 and at middle and ending at tornus; a terminal black line. Hind wing semihyaline white, the costa towards apex and the extremities of the veins blackish; a terminal black line.

Hab. Costa Rica, Guapiles (*Schaus*), 1 ♀ cotype, Avangarez Mines (*Schaus*), type † ♀ in U.S. Nat. Mus. *Exp.* 26 millim.

Genus **ISCADIA.**

	Type.
Iscadia, Wlk. xi. 724 (1857)	*aperta.*
Eucalypta, Möschl. Abh. Senck. Ges. xvi. p. 147 (1890)	*aperta.*

Proboscis aborted, small; palpi upturned, the 2nd joint reaching to vertex of head and fringed with hair above towards extremity, the 3rd very long, oblique and somewhat dilated at extremity; frons smooth with ridge of hair above; eyes large, round; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with spreading crest; fore tibiæ fringed on both sides with very long hair, the mid and hind tibiæ moderately fringed with hair; abdomen with dorsal crest at base only. Fore wing long and narrow, the margins subparallel, the apex rectangular, the termen oblique towards tornus, not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a short very broad areole; 11 from cell. Hind wing with vein 3 from just before angle of cell; 4, 5 from angle; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

Sect. I. Antennæ of male bipectinate with short branches, the apical part serrate.

A. Fore wing with the basal area not grey and contrasting.
  a. Fore wing black-brown ..... *nigra.*
  b. Fore wing grey suffused with purple-brown ..... *aperta.*
B. Fore wing with the basal area and inner area to postmedial line grey and contrasting ..... *ducinficldia.*

6679. **Iscadia nigra.** (Plate CLXXXIV. fig. 1.)

Iscadia nigra, Schaus, Proc. U.S. Nat. Mus. xxx. p. 103 (1906).

♀. Head and thorax black-brown tinged with leaden grey; palpi below, pectus and legs white mixed with brown; abdomen white tinged with brown. Fore wing black-brown suffused with leaden grey; antemedial line double, black, oblique and slightly excurved

to vein 1, then bent outwards to inner margin; orbicular and reniform slightly defined by blackish, the former round and with rufous scales in centre, the latter elliptical and with tuft of black scales in centre; four small dark spots on medial part of costa and a faint oblique dentate medial line from cell to inner margin; postmedial line black, bent outwards below costa, dentate to vein 3, then bent inwards and upwards round the reniform and minutely dentate from cell to inner margin; some dark points on terminal part of costa; subterminal line grey defined on inner side by blackish, waved, angled inwards below costa and slightly excurved below vein 7 and at middle, the veins beyond it with slight black streaks; a fine black terminal line. Hind wing semihyaline white, the veins towards termen and the termen more or less tinged with brown; cilia with some brown mixed; the underside with the costal area tinged with brown.

Hab. ARGENTINA, Tucuman (*Dinelly*), 1 ♀. *Exp.* 32–34 millim. Type † in U.S. Nat. Mus.

6680. Iscadia aperta.

Iscadia aperta, Wlk. xi. 725 (1857); Druce, Biol. Centr.-Am., Het. ii. p. 474, pl. 9*, f. 8.
Eucalypta schildei, Möschl. Abh. Senck. Ges. xvi. p. 148, f. 23 (1890).

Head and thorax grey mixed with brown; palpi with the 2nd joint black at sides, the 3rd with black ring near tip; tegulæ with black streaks at dorsum and middle; fore and hind tarsi black ringed with whitish; abdomen whitish dorsally suffused with fuscous brown. Fore wing grey suffused and irrorated with purple-brown, the base and patches on middle of costa and inner margin paler; antemedial line double, black, the inner line purple-brown except towards costa, oblique and slightly excurved to vein 1, then

Fig. 133.—*Iscadia aperta*, ♀. ½.

bent outwards to inner margin, minutely dentate at submedian fold; orbicular and reniform slightly defined by whitish and with tufts of brown scales in centres, the former round, the latter elliptical; four small brown spots on middle of costa and a medial line from cell to inner margin angled inwards at vein 1; post-medial line black, double at costa, bent outwards below costa, dentate to just below vein 3, then bent inwards and upwards round the reniform, oblique and sinuous from cell to inner margin; some small dark spots on costa towards apex; subterminal line whitish,

waved, excurved below vein 7 and at middle, the veins beyond it with slight dark streaks; a terminal black-brown line. Hind wing semihyaline white, the veins brownish towards tornen, the termen and cilia at base brown.

Ab. 1. Fore wing with black suffusion on medial area below costa and in upper part of cell.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♀; Guatemala (*Rodriguez*), 1 ♀; Costa Rica, Candelaria Mts. (*Underwood*), 1 ♀, Godman-Salvin Coll.; Haiti (*Tweedie*), 1 ♀ type; Porto Rico; Trinidad, Cuparo; Venezuela, Merida; Br. Guiana, Bartica; Brazil, Castro Paraña; S.E. Peru, San Domingo. *Exp.* 44–45 millim.

The single male, in Coll. Druce, has no bar-shaped retinaculum, ? broken off.

*6681. Iscadia ducinfieldia. (Plate CLXXXIV. fig. 2.)

Iscadia duckinfieldia, Schaus, Pr. U.S. Nat. Mus. xxx. p. 104 (1906).

♀. Head and thorax grey mixed with brown; palpi with the 2nd joint white in front; tegulæ with subbasal and medial brown lines; thorax with subdorsal brown streaks; tarsi blackish; abdomen whitish tinged with brown. Fore wing whitish irrorated with fuscous, the medial area suffused with brown from costa to discal fold, beyond the reniform not extending below vein 6; antemedial line double, obliquely curved, minutely waved and with another irregularly waved oblique line beyond it; the medial area with some minute indistinct brown annuli on costa; orbicular represented by a tuft of blackish scales, the reniform by a blackish lunule; postmedial line double, the outer line indistinct, obliquely incurved from costa to vein 7, minutely dentate to below vein 3 where it is retracted, then curved upwards above and round inner side of reniform and oblique to inner margin, angled outwards in submedian fold and above inner margin, some whitish points beyond it on costa; subterminal line double filled in with whitish, minutely dentate, excurved, oblique towards tornus; a fine black terminal line; cilia whitish with series of brownish spots. Hind wing white, the veins, costa and termen tinged with brown; cilia white tinged with brown at apex.

Hab. Brazil, Castro Paraña, type † in U.S. Nat. Mus. *Exp.* 40 millim. This may be an aberration of *I. aperta*.

Sect. II. Antennæ of male with fasciculate cilia.

A. Fore wing with the inner area whitish with irregular upper edge ..... *variegata.*
B. Fore wing with the inner area not whitish ..... *producta.*

6682. Iscadia variegata.

Iscadia variegata, Druce, A. M. N. H. (8) vi. p. 179 (1910).

♂. Head and thorax grey-white mixed with fuscous, the tips of tegulæ and prothorax purplish; palpi towards base of 2nd joint

and tip of 3rd black; frons with black bar above; tegulæ with black medial line; fore and mid tarsi black above; abdomen grey dorsally suffused with purplish brown except at extremity, the basal crest black at tip. Fore wing white irrorated with brown, the medial area to median nervure and the postmedial and terminal areas to vein 3 suffused with purplish brown; some greenish yellow in base of submedian fold and on inner margin beyond the antemedial line, which is blackish, oblique, waved; a medial triangular black mark from median nervure to vein 1; a black

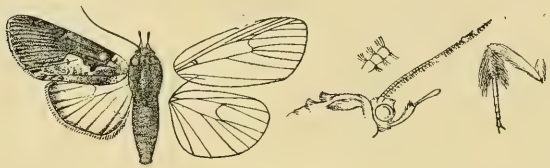


Fig. 134.—*Iscadia variegata*, ♂. ½.

point on a faint pale spot in middle of cell with some blackish suffusion beyond it and two black points on a slight pale discoidal mark; postmedial line black, indistinctly double, minutely waved, oblique from costa to vein 4, then incurved; a black streak beyond it below vein 3 extending to near termen or merging into a greenish yellow streak; subterminal line rather diffused, white, dentate, angled inwards below vein 7 and at discal and submedian folds; a series of black and white striæ just before termen and a short black streak in extremity of submedian fold; cilia brown intersected by whitish. Hind wing semihyaline white, the veins, costal area and termen tinged with brown.

Hab. Trinidad, Cuparo (*Klages*), type † in Coll. Druce; Costa Rica, Tuis (*Schaus*), 1 ♂, Sitio; Colombia, Don Amo (*H. H. Smith*), 1 ♂; Fr. Guiana, St. Laurent Maroni, 1 ♂; S.E. Peru, San Domingo (*Ockenden*). *Exp.* 38 millim. Type † in Coll. Druce.

6683. **Iscadia producta.** (Plate CLXXXIV. fig. 3.)

Simplicia producta, Dogn. Ann. Soc. Ent. Belg. xliv. p. 438 (1900).

Head and thorax black-brown mixed with grey, darker in front; palpi whitish in front; pectus and legs whitish irrorated with brown; abdomen pale reddish brown, the ventral surface whitish. Fore wing with the base grey tinged with red-brown, the rest of wing red-brown tinged in parts with grey; antemedial line indistinctly double, curved, minutely waved; points of raised black scales in middle of cell and on discocellulars in centres of faint annuli; postmedial line dark brown defined on each side by pale reddish on costal half and whitish on inner half, dentate, strongly bent outwards below costa and oblique below vein 4; some pale points on costa towards apex and an oblique pale reddish streak

from apex to the postmedial line at vein 6; subterminal line whitish defined on inner side by brown, minutely dentate, oblique below vein 3; a terminal series of small white lunules. Hind wing pale red-brown, the basal half whitish in male, the cilia whitish at tips; the underside whitish tinged with red-brown on costal area and terminal half.

Hab. Costa Rica, Juan Vinas; Trinidad, 1 ♀, Cuparo; Colombia, Rio Tamana, El Tigre, Popayan, type † ♂ in Coll. Dognin. *Exp.* 38–44 millim.

Sect. III. Antennæ of male simple and laminate.

A. Fore wing with the medial costal area black-brown ..... *bucleyi.*
B. Fore wing with the medial costa area not black-brown.
  a. Fore wing with the postmedial line strongly incurved at discal fold ..... *diopis.*
  b. Fore wing with the postmedial line slightly incurved at discal fold ..... *phæoptera.*

*6684. Iscadia bucleyi. (Plate CLXXXIV. fig. 4.)

Iscadia buckleyi, Druce, A. M. N. H. (8) vi. p. 178 (1910).

♂. Head black with some brown mixed, the palpi reddish brown in front, thorax whitish mixed with red-brown and black; abdomen reddish brown, the basal crest with some black; pectus and ventral surface of abdomen brownish ochreous. Fore wing ochreous suffused with red-brown and purplish and with slight black irroration, the medial costal area black-brown tinged with grey; antemedial line black, minutely waved, excurved; ridges of raised black scales at middle and end of cell; postmedial line double, the outer line indistinct, waved, strongly bent outwards below costa and oblique below vein 4, blackish spots on the outer line at discal and submedian folds; some short black streaks on terminal part of costa; subterminal line indistinct, pale, dentate, defined on inner side by small dentate black marks and a larger mark above vein 7; a terminal series of rather X-shaped brown spots. Hind wing reddish brown; the cilia pale at tips.

Hab. Ecuador, Sarayacu (*Buckley*), type † ♂ in Coll. Druce. *Exp.* 52 millim.

6685. Iscadia diopis.

Iscadia aperta, Druce, Biol. Centr.-Am., Het. ii. p. 474 (part.).
Iscadia diopis, Hmpsn. A. M. N. H. (7) xvi. p. 579 (1905).

Head and thorax clothed with fuscous, red-brown and grey scales; palpi with the 2nd joint white in front, black at sides except at tips; pectus and legs grey-brown; abdomen fuscous brown, the ventral surface whitish. Fore wing grey irrorated with black and suffused in parts with dark red-brown; some rufous suffusion at base followed by dark red-brown except towards costa;

antemedial line indistinctly double, waved, strongly excurved below the cell, followed by some dark red-brown suffusion ; orbicular and reniform round brownish ocelli defined by fuscous and with spots of raised black scales in centres ; an indistinct irregular medial line, angled outwards below costa ; postmedial line double, the outer

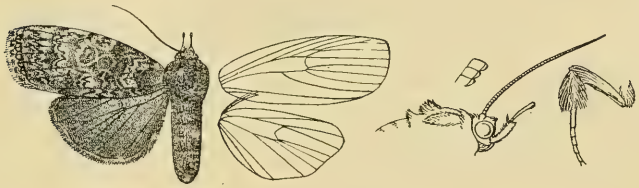


Fig. 135.—*Iscadia diopis*, ♀. ½.

line less distinct, irregularly waved, strongly bent outwards below costa, angled inwards at discal fold and bent inwards at vein 2 to below end of cell, some dark brown suffusion beyond it at discal fold and on inner area ; subterminal line grey defined on inner side by slight dentate dark marks and on outer by dark brown suffusion, minutely dentate, angled outwards at vein 7 and excurved at middle ; a series of small black marks just before termen connected by short streaks with a terminal series of small lunules. Hind wing fuscous brown ; cilia greyish at tips.

Hab. Costa Rica, Sta. Clara Valley, 1200′ (*Zurcher*), 1 ♀ type ; Trinidad, Cuparo. *Exp.* 50 millim.

*6686. **Iscadia phæoptera.** (Plate CLXXXIV. fig. 5.)

Iscadia phæoptera, Dogn. Mém. Soc. Ent. Belg. xviii. p. 152 (1910).

♂. Head and thorax dark reddish brown ; palpi white in front and black at sides on basal half ; tegulæ with dark band near tips ; the patagia with dark bands ; fore legs brown, the pectus and mid and hind legs brownish white ; abdomen brown, the ventral surface ochreous. Fore wing dark reddish brown ; antemedial line indistinctly double, curved, minutely waved, a band of dark suffusion beyond it more prominent towards costa ; black points at middle of cell and on discocellullars with traces of pale annuli round them ; postmedial line black, indistinctly double and minutely waved, very strongly bent outwards below costa and oblique below vein 4 ; some obscure dark marks on terminal half of costa ; subterminal line formed by slight dentate black marks ; a terminal series of small rather quadrate black spots. Hind wing uniform dark brown ; the underside rather greyer.

Hab. Fr. Guiana, St. Jean Maroni (*Schaus*) ; Brazil, Amazons, Pebas, type † ♂ in Coll. Dognin. *Exp.* 40 millim.

Genus OCHTHOPHORA.

Type.

Ochthophora, Turner, P. Linn. Soc. N. S. W. xxvii. p. 89 (1902). *sericina.*

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching to just above vertex of head and slightly fringed with hair above towards extremity, the 3rd long, porrect, and somewhat dilated at extremity; frons smooth with ridge of hair above; eyes large, round; antennæ of male somewhat laminate and ciliated; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with very large oblique flattened crest; fore tibiæ fringed on both sides with long hair, the mid and hind tibiæ smoothly scaled; abdomen with dorsal crest at base only. Fore wing with the costa highly arched near base, the apex rounded, the termen oblique towards tornus, not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a large long areole; 11 from cell. Hind wing with vein 3 from just before angle of cell; 4, 5 shortly stalked; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

6687. Ochthophora sericina.

Ochthophora sericina, Turner, Pr. Linn. Soc. N. S. W. xxvii. p. 90 (1902).

Head and thorax pale brown mixed with grey; abdomen pale brown, white below. Fore wing silky grey suffused with brown except on costal and base of inner areas; basal black points in and below cell; a waved grey subbasal line from costa to median nervure and two before the fine oblique irregularly waved black antemedial line; traces of a waved medial line; the orbicular and reniform represented by tufts of brown scales with grey annuli; a fine waved and dentate black postmedial line, very oblique from costa to

Fig. 136.—*Ochthophora sericina*, ♀. ½.

vein 7, at vein 2 retracted to upper angle of cell, passing round inner side of reniform, then running obliquely outwards to vein 2 and angled inwards in submedian fold; an indistinct irregularly waved subterminal line. Hind wing semihyaline white, the costa and termen suffused with brown, on latter narrowing to a point at vein 2.

Hab. Queensland, Kuranda (*Dodd*), 1 ♀, Brisbane, type † ♂ in Coll. Turner. *Exp.* 38 millim.

Genus **ELESMA**.

	Type.
Elesma, Wlk. xxxii. 608 (1865)	*subglauca*.
Amaloptera, Turner, Trans. R. Soc. S. Austr. xxvii. p. 6 (1903) .	*subglauca*.

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching about to middle of frons and moderately fringed with hair in front, the 3rd short with slight tuft of hair in front; frons smooth with large tuft of hair above; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with spreading crests; tibiæ slightly fringed with hair; abdomen without crests. Fore wing long and narrow, the apex rectangular, the termen evenly curved and not crenulate; vein 3 from before angle of cell; 5 from above angle; 6 from upper angle; 7, 8, 9 on a long stalk; 10, 11 from cell. Hind wing with veins 3, 4 on a long stalk; 5 fully developed from just above angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

6688. **Elesma subglauca.**

Elesma subglauca, Wlk. xxxii. 608 (1865).
Metaptila philomela, Lower, Pr. Linn. Soc. N. S. W. xxv. p. 31 (1900).
Amaloptila triorbis, Turner, Trans. Roy. Soc. S. Austr. xxvii. p. 6 (1903).

Head and tegulæ whitish irrorated with fuscous; thorax grey irrorated with black; abdomen whitish. Fore wing grey finely irrorated with black; the antemedial line black, very oblique from costa to submedian fold, then incurved and angled outwards above inner margin; orbicular small, round, defined by black; black-edged lunules on median and subcostal nervures before end of cell

Fig. 137.—*Elesma subglauca*, ♀. ½.

and on discocellulars, with raised brown scales in centres; post-medial line fine, waved, bent outwards below costa, oblique to vein 4, then strongly incurved and minutely dentate; subterminal line greyish defined on inner side by black, dentate, angled outwards at vein 7, incurved at discal fold and below vein 3, the interspaces beyond it with black streaks. Hind wing white, the terminal area tinged with fuscous to vein 2.

Hab. N. S. Wales (*Damel*), 1 ♀ type, Newcastle, type †♂ *triorbis* in Coll. Turner. *Exp.* 34 millim.

Genus ELÆOGNATHA.

Type.
Elæognatha, Hmpsn. A. M. N. H. (7) xvi. p. 577 (1905) ..... *argyritis.*

Proboscis absent; palpi up turned, slender, the 2nd joint reaching to vertex of head and with tuft of hair on inner side at extremity, the 3rd long and somewhat dilated at extremity; frons smooth, rounded; eyes large; antennæ of male laminate and ciliated; head and thorax clothed chiefly with scales, the pro- and metathorax with spreading crests; fore tibiæ fringed with long hair on outer side; abdomen with dorsal crest at base and slight subdorsal tufts of hair. Fore wing elongate, the inner margin strongly arched, the apex rounded and the termen obliquely curved; vein 2 from middle of cell, curved at base; 3 and 5 from close to angle of cell; 6 from upper angle or from areole which is rather long and formed by 9 from 10 anastomosing with 7, 8; 11 from cell. Hind wing with veins 3 and 5 stalked, 4 absent; 6, 7 stalked; 8 anastomosing with the cell to near extremity.

Sect. I. Fore wing of male with large elliptical patch of androconia below middle of cell; hind wing with the costa highly arched, with a fringe of long hair below its basal half on upperside and a patch of hyaline membrane extending to just below and beyond the cell, the apex produced and acute.

A. Fore wing without broad silvery white fascia through the cell from base to postmedial line ..... *phæostrota.*
B. Fore wing with broad silvery white fascia through the cell from base to postmedial line..... *argyroleuca.*

6689. Elæognatha phæostrota.

Elæognatha phæostrota, Hmpsn. A. M. N. H. (7) xvi. p. 578 (1905).

Head and thorax clothed with silvery white, reddish brown and black scales; palpi with the 2nd joint blackish at sides; pectus and legs grey, the fore and mid tarsi fuscous above; abdomen grey, dorsally suffused with reddish brown. Fore wing silvery grey irrorated with black and suffused with dark brown except on

Fig. 138.—*Elæognatha phæostrota*, ♂. ½.

terminal area; a very indistinct antemedial series of dark spots; a black point in middle of cell and another on discocellulars; postmedial line bent outwards below costa, then somewhat dentate, incurved between veins 5 and 3, then retracted to the cell, bent outwards between veins 2 and 1, then retracted to before middle of wing and bent outwards again to inner margin; subterminal line

fuscous defined by white on inner side, minutely waved, angled outwards at veins 7, 6, retracted at vein 3 and ending at tornus; a terminal series of prominent black spots. Hind wing dark reddish brown; cilia whitish at tips.

Hab. Costa Rica; Panama, Cana Mines (*Tylecote*), 1 ♀ type. *Exp.* 36 millim.

6690. **Elæognatha argyroleuca**, n. sp. (Plate CLXXXIV. fig. 6.)

♀. Head and thorax grey mixed with black-brown; abdomen grey suffused with brown; pectus and ventral surface of abdomen white. Fore wing purplish grey suffused with brown in parts especially below the cell and irrorated with black, the terminal area irrorated with white; a broad silvery white fascia from base of costa extending through the cell and just below it to postmedial line, the submedian interspace tinged with sap-green to postmedial line; a minute black point in middle of cell; postmedial line black, bent outwards below costa and between veins 6 and 5, at vein 3 angled inwards to origin of vein 2, then outwards just above vein 1 and inwards above inner margin to middle; subterminal line white slightly defined on inner side by black, oblique towards costa, bent inwards at vein 3 and ending at tornus; a terminal series of black striæ defined on inner side by white. Hind wing grey suffused with purple-brown; cilia white at tips; the underside whitish, the costa and termen tinged with brown.

Hab. Fr. Guiana, Nouveau Chantier (*Le Moult*), 1 ♀ type. *Exp.* 32 millim.

Sect. II. Fore wing of male with fringe of short hair from subcostal nervure on underside, the cell almost entirely filled by a large patch of androconia; hind wing with fringe of long hair below basal half of costa on upperside, the termen strongly excised between veins 6 and 3.

*6691. **Elæognatha troctopera.**

Elæognatha troctopera, Schaus, A. M. N. H. (8) vi. p. 203 (1910).

♂. Head and thorax chocolate-brown mixed with white; palpi with the 2nd joint blackish at sides; pectus and legs white with

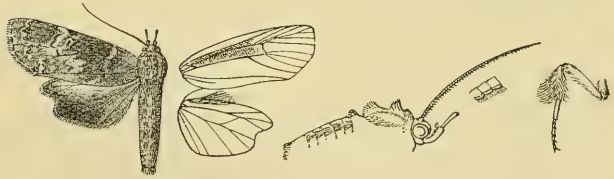


Fig. 139.—*Elæognatha troctopera*, ♂. ½.

some brown; abdomen white dorsally suffused with purplish brown. Fore wing chocolate-brown suffused with metallic silver, a large

patch on medial costal area extending to discal fold and smaller patches beyond the postmedial and subterminal lines and on termen above tornus without silver suffusion; some white on basal costal area; an indistinct oblique white antemedial line with slight dark marks on its inner side; a faint whitish point in middle of cell; reniform a small white lunule with brownish centre; postmedial line blackish slightly defined on each side by whitish, bent outwards below costa, then waved, oblique to discal fold, then inwardly oblique to middle of inner margin, a white point beyond it on costa and a blackish streak below costa; subterminal line white, minutely waved towards costa, excurved at middle, angled inwards at discal fold and vein 2, then erect to tornus; a terminal series of black-brown spots. Hind wing brown, the costal area whitish; cilia white at tips; the underside grey-white, the costal area tinged with brown.

Hab. Costa Rica, Carillo (*Schaus*), type † ♂ in U.S. Nat. Mns. *Exp.* 40 millim.

Sect. III. Hind wing of male with fringe of long hair below costa on upperside.

A. Fore wing suffused with brilliant silver; hind wing brownish *argentea.*
B. Fore wing silvery grey; hind wing white..... *nitescens.*

6692. Elæognatha argentea.

Elæognatha argentea, Schaus, A. M. N. H. (8) vi. p. 204 (1910).

Head and thorax white mixed with some chocolate-brown and blackish; palpi with the 2nd joint black at sides; fore tarsi ringed with black, the mid tarsi with some brown at base of 1st joint, the other joints black above; abdomen white dorsally tinged with grey, the basal crest brown at tip. Fore wing white slightly irrorated with brown and suffused with brilliant silver

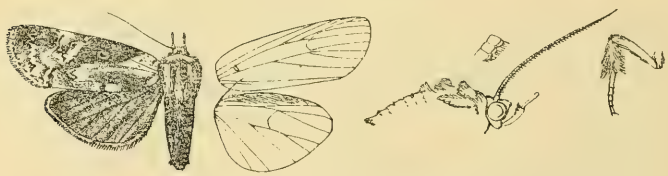


Fig. 140.—*Elæognatha argentea,* ♂. ½.

to postmedial line except on costal area; patches of chocolate-brown suffusion on costal area at middle and from postmedial line to apex; a small round black spot of raised scales with white annulus at middle of cell; a slight oblique white discoidal lunule with striga of raised brown scales in its upper part; postmedial line chocolate-brown, strongly bent outwards below

costa, oblique and dentate below vein 5, bent inwards at vein 1 and ending at middle of inner margin, two black-brown spots beyond it on costa and two streaks below costa; subterminal line white faintly defined on each side by brown, waved, bent outwards at vein 7 and inwards at vein 2, then oblique to tornus, a terminal series of black-brown striæ. Hind wing pale grey-brown, the cilia white; the underside brownish white.

Hab. Costa Rica, Juan Vinas (*Schaus*), 1 ♂, 1 ♀. *Exp.* 48–54 millim. Type † in U.S. Nat. Mus.

*6693. Elæognatha nitescens. (Plate CLXXXIV. fig. 7.)

Alœognatha nitescens, Druce, A. M. N. H. (8) vi. p. 179 (1910).

Head and thorax dark brown mixed with white; palpi with the 2nd joint black at sides; tegulæ with black tips; abdomen white dorsally tinged with brown, the basal crest blackish. Fore wing silvery grey irrorated with red-brown, the basal area white; antemedial line indistinct, brown, waved; tufts of raised brown scales on white spots at middle of cell and on discocellulars; postmedial line brown defined on outer side by whitish except towards inner margin, bent outwards and almost obsolete below costa, dentate and very oblique below vein 4 to inner margin before middle, some short blackish streaks beyond it on costa and two streaks below costa; subterminal line whitish defined on outer side by brown, dentate, angled inwards at discal fold and bent inwards below vein 3, the veins beyond it streaked with black towards apex; a terminal series of small black spots. Hind wing semihyaline white, the veins and terminal area to vein 3 tinged with brown especially in female.

Hab. S.E. Peru, S. Domingo (*Ockenden*), Oconeque (*Ockenden*), 1 ♀. *Exp.* 40–44 millim. Type † in Coll. Druce.

Sect. IV. Wings of male normal.

A. Fore wing with the ground-colour silvery white ..... *argyritis.*
B. Fore wing suffused with brown.
  a. Hind wing whitish tinged with brown.
    a^1. Fore wing with patch of metallic green at base of inner margin ..... *purpurascens.*
    b^1. Fore wing without metallic green patch at base of inner margin ..... *melanosticta.*
  b. Hind wing deep chocolate-brown ..... *cacaonis.*

6694. Elæognatha argyritis. (Plate CLXXXIV. fig. 8.)

Elæognatha argyritis, Hmpsn. A. M. N. H. (7) xvi. p. 577 (1905).

♀. Head and thorax silvery white; palpi with the 2nd joint dark brown at sides; tips of tegulæ and patagia dark brown; fore tibiæ and tarsi banded with fuscous; abdomen white dorsally

tinged with brown. Fore wing silvery white; some black points at base; silvery blue streaks in base of submedian fold and above base of inner margin, black at extremities; a waved black subbasal line from costa to just above inner margin; a large rufous patch on middle of costa, defined on inner side by the antemedial line, which is angled outwards on subcostal nervure and ends at submedian fold; medial black striæ from cell and vein 1; a quadrate black spot in middle of cell and obliquely curved discoidal bar, with two slight oblique marks beyond it; postmedial line irregularly waved, oblique from costa to vein 6, then inwardly oblique to vein 2, retracted to cell then excurved and angled inwards in submedian fold, a brown patch beyond it from costa to vein 6, constricted at middle and with oblique bar from its lower edge; subterminal line rather slight and punctiform, angled outwards at vein 7 and inwards below veins 7 and 3, some brown beyond it at apex and an oblique streak from it to termen above tornus; a terminal series of black points. Hind wing pale fuscous.

Hab. Costa Rica, Juan Vinas; Panama, Cana Minor (*Tylecote*), 1 ♀ type. *Exp.* 30 millim.

*6695. Elæognatha purpurascens. (Plate CLXXXIV. fig. 9.)

Elæognatha purpurascens, Druce, A. M. N. H. (8) vi. p. 180 (1910).

♂. Head and tegulæ ochreous brown mixed with black, thorax ochreous brown mixed with purplish grey; palpi in front and pectus white, the mid tarsi black above; abdomen white dorsally tinged with grey, the basal crest brown. Fore wing silvery purplish grey; a metallic green patch at base of inner area defined by whitish; a tuft of red-brown scales ringed with whitish at middle of cell and a minute discoidal tuft; postmedial line bent outwards and almost obsolete below costa, then black with a patch of rufous and white beyond it and some white before it and incurved to vein 6, then indistinct, irregularly dentate, and very oblique to inner margin before middle, towards which it has some slight rufous suffusion beyond it, some short black streaks beyond it on costa and three streaks below costa; subterminal line formed of small whitish lunules with slight dentate black marks before them below veins 7, 6, bent inwards below vein 3 and ending at tornus; a terminal series of small black spots defined on inner side by whitish. Hind wing semihyaline white, the veins and terminal area slightly tinged with brown.

Hab. S.E. Peru, La Oroya (*Ockenden*), type † ♂ in Coll. Druce. *Exp.* 34 millim.

6696. Elæognatha melanosticta.

Elæognatha melanosticta, Druce, A. M. N. H. (8) vi. p. 179 (1910).

Head and thorax white mixed with chocolate-brown; palpi with the 2nd joint chocolate-brown at sides; fore and mid tarsi blackish ringed with white; abdomen whitish dorsally suffused with brown,

the basal crest with black mixed. Fore wing white irrorated and suffused with chocolate-brown, the basal area rather whiter; antemedial line indistinctly double, blackish, curved, waved; orbicular a round whitish spot with point of raised black scales in centre; the reniform represented by two obliquely placed points of raised black scales; postmedial line red-brown, bent outwards below costa, then

Fig. 141.—*Elæognatha melanosticta*, ♂. ½.

minutely waved, oblique to vein 4, then very oblique inwardly to vein 1 before middle and bent outwards to inner margin; postmedial line whitish defined on inner side by brown, excurved below vein 7 and at middle, angled inwards at discal fold and bent inwards below vein 3, then oblique to tornus; a terminal series of small black spots. Hind wing semihyaline whitish tinged with brown especially in female, the cilia whiter.

Ab. 1. Fore wing with the medial area below the cell suffused with fuscous and bluish green, a white point with black annulus defined by white except below above submedian fold.

Ab. 2. Similar but with black medial point with white annulus above submedian fold.

Ab. 3. Fore wing with the basal area, the outer edge of antemedial line to submedian fold and a fascia below the cell extending to postmedial line variegated with yellowish white and slightly tinged with green.

Ab. 4. Thorax with some bright yellow at tips of patagia and extremity of metathorax; fore wing with yellow and greenish streak above vein 1, the antemedial line with some greenish and yellow on each side to median nervure, then an obliquely curved yellow fascia to postmedial line at vein 1.

Hab. Costa Rica, La Florida, Sixola R. (*Schaus*), 1 ♀; Colombia, Popayan; Fr. Guiana, St. Laurent Maroni; Peru, La Oroya (*Ockenden*), S. Domingo (*Ockenden*), 1 ♂. *Exp.* 34 millim. Type † in Coll. Druce.

*6697. Elæognatha cacaonis. (Plate CLXXXIV. fig. 10.)

Elæognatha cacaonis, Druce, A. M. N. H. (8) vi. p. 180 (1910).

♀. Head and thorax chocolate-brown mixed with grey; palpi with the 2nd joint dark brown at sides; abdomen purplish grey-brown, the ventral surface whitish. Fore wing whitish almost entirely suffused and irrorated with chocolate-brown, the basal

costal area, a medial patch below the cell and the terminal area rather whiter; antemedial line blackish defined on outer side by whitish except towards inner margin, oblique to median nervure, then inwardly oblique and somewhat dentate; small black spots below middle of cell, in middle of cell, and two obliquely placed on the discocellulars; a slight dark bar across the cell before extremity; postmedial line dark, bent outwards and almost obsolete below costa, then waved, oblique to vein 4, then inwardly oblique to middle of inner margin and met at vein 1 by an oblique dentate black line from median nervure defined on inner side by white, some white points beyond it on costa; subterminal line whitish, dentate and defined on inner side by dentate brown marks, slightly bent inwards below vein 3; a terminal series of small black spots. Hind wing dark chocolate-brown.

Hab. TRINIDAD, Cuparo (*Birch*), type † ♀ in Coll. Druce. *Exp.* 36 millim.

Genus **STENISCADIA**, nov.

Type, *S. poliophæa.*

Proboscis fully developed; palpi with the 2nd joint obliquely upturned, reaching to far above vertex of head and fringed with hair above towards extremity, the 3rd long and somewhat dilated at extremity; frons smooth, with ridge of hair above; eyes large, round; antennæ of female almost simple; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with slight depressed crest; tibiæ moderately fringed with hair; abdomen with dorsal crest at base only. Fore wing long and narrow, the margins subparallel, the apex rounded, the termen obliquely curved and not crenulate; vein 3 from before angle of cell; 5 from well above angle; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long very narrow areole; 11 from cell. Hind wing with veins 3 and 5 from angle of cell, 4 absent, coincident with 3; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

6698. **Steniscadia poliophæa**, n. sp.

♀. Head and thorax brown mixed with grey-white, the tegulæ red-brown edged with whitish; palpi whitish at base and at base of 3rd joint; pectus and legs whitish, the fore tibiæ and tarsi brown above;

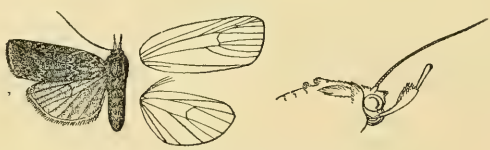


Fig. 142.—*Steniscadia poliophæa*, ♀. ½.

abdomen grey-brown, the ventral surface whitish except towards extremity. Fore wing whitish thickly irrorated with black-brown and tinged with rufous in submedian interspace; traces of a double waved subbasal line, a diffused black patch from costa to median nervure before the antemedial line, which is double, black filled in

with whitish, waved, incurved in submedian interspace; a black discoidal bar; postmedial line black defined on outer side by whitish, minutely dentate, excurved from costa to vein 4, then incurved and bent outwards to inner margin, a dark patch beyond it on costal area; subterminal line indistinct, whitish defined on inner side by dark brown, excurved below vein 7 and at middle, a terminal series of black points. Hind wing grey-brown.

Hab. Ecuador, Paramba (*Rosenberg*), 1 ♀ type. *Exp.* 30 millim.

Genus **MICRISCADIA**, nov.

Type, *M. metachryseis*.

Proboscis fully developed; palpi porrect, the 2nd joint extending about the length of head and slenderly scaled, the 3rd long and somewhat dilated at extremity; frons rounded: antennæ of female minutely ciliated; thorax clothed with scales and hair mixed and without crests; fore tibiæ fringed with long hair, the mid tibiæ slightly fringed with hair, the hind tibiæ smoothly scaled; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; vein 3 from before angle of cell; 5 from just above angle; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long narrow areole; 11 from cell. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

6699. **Micriscadia metachryseis**, n. sp.

♀. Head and thorax whitish mixed with ochreous brown and some blackish; tegulæ with diffused blackish medial band; abdomen whitish tinged with ochreous, the medial segments suffused with blackish, lateral series of black points, the ventral surface ochreous white. Fore wing grey suffused with brick-red and irrorated with blackish; subbasal line represented by double black points below costa and at vein 1; a blackish shade on antemedial area except towards costa; antemedial line blackish, waved; reniform very large, elliptical, defined by black and with whitish spot irrorated

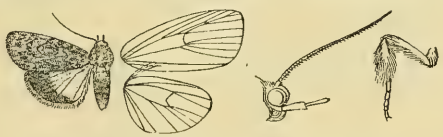


Fig. 143.—*Micriscadia metachryseis*, ♀. ½.

with black in centre; postmedial line black, strongly bent outwards below costa, then dentate, excurved to vein 4, then strongly incurved; some short blackish streaks on terminal part of costa; subterminal line whitish irrorated with black and with small black spots on its outer edge except at discal fold, excurved from vein 7 to vein 3, then incurved. Hind wing golden yellow with broad terminal black band narrowing to a point at vein 1; cilia brown, whitish at tips and yellow towards tornus.

Hab. Br. Guiana, Demerara (*Rodway*), 1 ♀, Rockstone (*Kaye*), 1 ♀ type. *Exp.* 26–28 millim.

Genus ÆSCHRADIA, nov.

Type, *Æ. mammida.*

Proboscis fully developed; palpi with the 2nd joint obliquely upturned and reaching about to vertex of head, moderately fringed with hair in front, the 3rd long, porrect, and somewhat dilated at extremity; frons smooth, with tuft of hair; eyes large, round; antennæ of male with fascicles of long ciliæ; thorax clothed with hair and scales mixed, the prothorax without crest, the metathorax with slight spreading crest; fore coxæ, femora and tibiæ fringed with long hair; abdomen without crests. Fore wing long and narrow, the apex rounded, the termen evenly curved and not crenulate; vein 3 from before angle of cell, 5 from just above angle; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long narrow areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell, 5 from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

6700. Æschradia mammida.

Apamea mammida, Druce, Biol. Centr.-Am., Het. ii. p. 477, pl. 93. f. 20 (1898).

Head, thorax, and abdomen fuscous mixed with ochreous; tarsi fuscous ringed with white. Fore wing fuscous brown irrorated with grey; a small whitish patch at base of costa; subbasal line double, blackish filled in with whitish, waved, from costa to vein 1; antemedial line double, blackish filled in with whitish, minutely waved, slightly angled outwards in submedian fold; a black point in middle of cell and small double discoidal lunule with rufous marks before them; postmedial line blackish, defined on each side by ochreous white at costa, strongly bent outwards below costa,

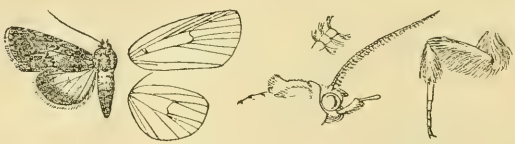


Fig. 144.—*Æschradia mammida*, ♂. ½.

then defined on outer side by rufous, minutely dentate, strongly incurved below vein 4, some ochreous white points beyond it on costa; subterminal line represented by a minutely waved series of faint ochreous white marks with slight black streaks before them in the interspaces; a series of black points just before termen with slight ochreous white marks before them. Hind wing semihyaline white, the veins and terminal area brown; cilia white tinged with ochreous at base; the underside with the costal area suffused with brown.

Hab. Guatemala, Volcan de Atitlan (*Champion*), 1 ♂, 1 ♀ type, Godman-Salvin Coll.; Costa Rica, San José, Juan Vinas. *Exp.* 30 millim.

Genus CALATHUSA.

	Type.
Calathusa, Wlk. xv. 1645 (1858)	*basicunea.*
Sina, Wlk. xxxii. 610 (1865)	*basicunea.*
Hisbanda, Wlk. xxxiv. 1267 (1865)	*basicunea.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and fringed with hair behind towards extremity, the 3rd moderate; frons smooth, surrounded by a slight raised ring and with tuft of scales above between antennæ; eyes large, round; antennæ of male with long bristles and cilia; thorax clothed almost entirely with scales, the pro- and metathorax with spreading crests; tibiæ slightly fringed with hair; abdomen without crests, long and slender. Fore wing with the apex somewhat produced and acute, the termen evenly curved, crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a rather short and broad areole; 11 from cell. Hind wing with veins 3, 4 shortly stalked or from cell; 5 nearly fully developed from above angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to middle; the bar-like retinaculum curled round the frenulum and covered by a fringe of hair.

A. Hind wing pale red.
  a. Hind wing with the terminal area broadly black ..... *hypotherma.*
  b. Hind wing with the terminal area suffused with brown from apex to vein 2 ..... *ischnodes.*
B. Hind wing tinged with yellow.
  a. Fore wing with tuft of scales in a black annulus below the orbicular ..... *octogesima.*
  b. Fore wing without tuft of scales and annulus below the orbicular.
    a^1. Fore wing with dentate blackish marks before subterminal line.
      a^2. Fore wing with obliquely placed black spots in and below base of cell ..... *abebœa.*
      b^2. Fore wing without black spots in and below base of cell ..... *subflavida.*
    b^1. Fore wing without dentate blackish marks before subterminal line ..... *stenophylla.*
C. Hind wing not tinged with yellow.
  a. Fore wing with the veins not streaked with black.
    a^1. Fore wing with the antemedial line oblique.
      a^2. Fore wing with the antemedial line incurved in submedian interspace ..... *basicunea.*
      b^2. Fore wing with the antemedial line not incurved in submedian interspace ..... *dispila.*
    b^1. Fore wing with the antemedial line erect.
      a^2. Fore wing with the postmedial line well separated from the reniform.
        a^3. Fore wing whitish tinged with olive-green or brown ..... *mesospila.*
        b^3. Fore wing grey suffused with brown ..... *metableta.*
      b^2. Fore wing with the postmedial line touching upper and lower extremities of the reniform ... *eremna.*
  b. Fore wing with the veins streaked with black ..... *delosticha.*

*6701. Calathusa hypotherma. (Plate CLXXXIV. fig. 11.)

Corula hypotherma, Lower, Tr. R. Soc. S. Austr. xxvii. p. 40 (1903).

♀. Head and thorax brown mixed with grey; abdomen reddish, ochreous below. Fore wing grey tinged with brown and with

slight blackish irroration; the costal area suffused with fuscous from near base to subterminal line; a large fuscous patch on inner area from near base to middle; an oblique almost straight black antemedial line; reniform small, indistinctly defined by brown; postmedial line black, minutely dentate, bent outwards below costa, incurved at discal fold and more strongly below vein 4, some grey points beyond it on costa; subterminal line greyish, excurved at middle, defined by fuscous suffusion on inner side and by a brown line on outer; a series of dark points before termen. Hind wing pale red with the terminal area black, narrowing to a point at tornus; cilia red; the underside pale tinged with red.

Hab. Queensland, Mackay, type † ♀ in Coll. Lower. *Exp.* 30 millim.

6702. **Calathusa ischnodes.** (Plate CLXXXIV. fig. 12.)

Corula ischnodes, Turner, Tr. R. Soc. S. Austr. xxvii. p. 10 (1903).

♀. Head and thorax purplish grey mixed with fuscous; pectus and hind legs brownish white; abdomen ochreous white tinged with brown. Fore wing purplish grey suffused with brown, the veins and discal and submedian folds streaked with black; traces of a pale curved antemedial band defined at sides by faint blackish lines; a whitish postmedial line faintly defined on inner and outer sides by dark lines, excurved below costa and at middle, incurved at discal fold and below vein 4; traces of a rather diffused dark subterminal line; a series of slight dark striæ just before termen and a fine terminal line. Hind wing pale purplish red, the costal area whitish, the apical point of terminal area tinged with brown: cilia whitish; the underside whitish with blackish terminal band from apex to vein 2.

Hab. Queensland, Duaringa (*Barnard*), 2 ♀; N. S. Wales, Waverley (*Lyell*), 1 ♀. *Exp.* 28–32 millim.

6703. **Calathusa octogesima.** (Plate CLXXXIV. fig. 13.)

Corula octogesima, Turner, Pr. Linn. Soc. N. S. W. xxvii p. 97 (1902).

♀. Dark brown mixed with grey-white; pectus and legs white, the latter irrorated with brown; abdomen yellow dorsally tinged with brown on terminal half, the ventral surface white. Fore wing dark brown mixed with some grey-white and slightly irrorated with black; a subbasal black line from costa to submedian fold, slightly excurved below costa; antemedial line black, slightly angled outwards below costa, then somewhat excurved; orbicular confluent with a stigma below the cell forming a figure-of-eight shaped mark, the reniform elliptical, all defined by black and with tufts of blackish scales in centres; postmedial line black, oblique from costa to vein 6 and slightly incurved below vein 4; subterminal line white defined on inner side by black forming two spots below costa and with white suffusion before it, excurved below vein 7 and at

middle; a black line before termen and a terminal line. Hind wing yellow irrorated with brown, the terminal area suffused with brown from apex to submedian fold; the underside white, the terminal area suffused with blackish from apex to vein 2.

Hab. Queensland, Brisbane (*Turner*), 1 ♀. *Exp.* 34 millim.

6704. **Calathusa abebœa.** (Plate CLXXXIV. fig. 14.)

Corula abebœa, Turner, Pr. Linn. Soc. N. S. W. xxvii. p. 101 (1902).

♂. Head, thorax, and abdomen white tinged with ochreous, the prothoracic crest with some blackish. Fore wing white tinged with ochreous brown, the basal area irrorated with a few black scales, the inner half of medial area irrorated with fuscous; a small black spot at base of submedian fold and subbasal spot in cell; antemedial line blackish, oblique, angled outwards at subcostal nervure, submedian fold, and vein 1; a tuft of raised scales at middle of cell and a small blackish discoidal lunule with tuft of raised scales in centre; an oblique dark striga from middle of costa to reniform and incurved waved line from lower angle of cell to inner margin, connected by slight streaks on veins 3, 2 with the indistinct dark postmedial line, which is excurved below costa and at middle, then incurved; subterminal line defined on inner side by small dentate black marks and at submedian interspace by a double mark, and on outer side by olive-brown, oblique to discal fold and excurved at middle; a series of black points just before termen. Hind wing ochreous white irrorated and suffused with fuscous brown except towards base, the terminal area darker from apex to vein 2; the underside ochreous white, the terminal area black from apex to vein 3.

Hab. Queensland, Brisbane (*Turner*), 1 ♀. *Exp.* 38 millim.

6705. **Calathusa subflavida**, n. sp. (Plate CLXXXIV. fig. 15.)

♀. Head and thorax brown mixed with white; abdomen white suffused with purplish pink; pectus, legs, and ventral surface of abdomen white. Fore wing white mixed with brown and a few black scales; traces of a blackish subbasal line, angled outwards below costa and ending at vein 1; an indistinct blackish antemedial line slightly angled outwards at subcostal and median nervures and excurved above inner margin; tufts of raised white scales tipped with brown at middle of cell and on discocellulars; traces of a medial dark shade, bent outwards below costa, then sinuous; an indistinct dark postmedial line, excurved below costa and at middle, slightly incurved at discal fold and incurved below vein 4; subterminal line whitish defined on inner side by a series of dentate blackish marks and on outer by a dark line, excurved below vein 7 and at middle; a series of blackish striæ just before termen. Hind wing pale yellow, the terminal area suffused with blackish from

apex to vein 2; the underside white, the terminal area black from apex to vein 3.

Hab. Queensland, Kuranda (*Dodd*), 1 ♀ type. *Exp.* 30 millim.

*6706. Calathusa stenophylla. (Plate CLXXXIV. fig. 16.)

Corula stenophylla, Turner, Pr. Linn. Soc. N. S. W. xxvii. p. 100 (1902).

♂. Head and thorax grey; palpi, antennæ, a patch on tegulæ, and metathoracic crest black; abdomen grey dorsally slightly tinged with brown. Fore wing grey; the subbasal line blackish, curved, from costa to vein 1, followed by a black-suffused band before the antemedial slightly waved line; a black-suffused medial band with the slight tufts of black scales representing the orbicular and reniform on it and bounded by the fine black postmedial line, excurved between subcostal nervure and vein 3; costa brownish towards apex with three black spots on it; a double irregularly waved subterminal line, the inner line strong, black with some black suffusion on its inner edge; a series of black striæ before termen and a fine black terminal line. Hind wing white tinged with fuscous; the terminal area fuscous narrowing to a point at tornus; the underside pure white with terminal black band from costa to vein 2.

Hab. Queensland, Brisbane, type † ♂ in Coll. Turner. *Exp.* 24 millim.

6707. Calathusa basicunea.

Calathusa basicunea, Wlk. xv. 1645 (1858).
Sina tenera, Wlk. xxxii. 610 (1865).
Hisbanda acronyctoides, Wlk. xxxiv. 1268 (1865).

Head and thorax grey-white mixed with brown, some blackish at tips of tegulæ and in pro- and metathoracic crests; the palpi and legs irrorated with purplish red, the tarsi ringed with black; abdomen white suffused with purplish red. Fore wing grey-white mixed with pale brown and irrorated with black; a very short

Fig. 145.—*Calathusa basicunea*, ♂. ½.

black streak at base of median nervure and an oblique subbasal black striga from costa; antemedial line black, oblique, incurved in submedian interspace, an olive-brown shade beyond it from costa to median nervure; tufts of raised scales tipped with blackish at middle of cell and on discocellulars; an oblique blackish bar from middle of costa and a slight streak on vein 2 before the double postmedial

line, which is excurved below costa and at middle, then incurved, some black points beyond it on costa; subterminal line white defined on inner side by small dentate black marks and double mark at submedian fold, and on outer side by some black scales, oblique and somewhat dentate to discal fold and excurved at middle; a series of small black spots just before termen; a fine waved terminal black line. Hind wing ochreous whitish, the terminal area suffused with fuscous brown; an indistinct postmedial line from vein 5 to inner margin: cilia tinged with purplish pink; the underside white, the costal area irrorated with purplish pink, the terminal area black from apex to vein 3.

Hab. Queensland, Moreton Bay (*Damel*, *Diggles*), 2 ♂, 1 ♀ type *tenera*; N. S. Wales, Sydney (*Lambert*, *Raynor*), 3 ♂ type and type *acronyctoides*. *Exp.* 34 millim.

*6708. **Calathusa dispila.** (Plate CLXXXIV. fig. 17.)

Corula dispila, Turner, Pr. Linn. Soc. N. S. W. xxvii. p. 98 (1902).

♂. Head and thorax grey mixed with pale brown; abdomen grey dorsally tinged with pale brown. Fore wing grey irrorated with black and suffused in parts with pale brown; a black subbasal line angled on subcostal nervure, then oblique; the antemedial line black, oblique, slightly waved, with traces of a brown line on its inner side; orbicular and reniform prominently outlined in black and with slight tufts of scales on them, the former upright elliptical with a black striga on costa above it; a waved line from lower angle of cell to inner margin; the postmedial line black, bent outwards below costa, angled outwards at veins 6 and 4, then strongly incurved; two irregularly dentate subterminal lines incurved below vein 3; a series of black striæ before termen and a fine terminal line. Hind wing whitish suffused with brown especially towards termen; the underside white with fuscous terminal band narrowing to a point at tornus.

Hab. Queensland, Brisbane, type† ♂ in Coll. Turner. *Exp.* 28 millim.

6709. **Calathusa mesospila.** (Plate CLXXXIV. fig. 18.)

Corula mesospila, Turner, Pr. Linn. Soc. N. S. W. xxvii. p. 99 (1902).

Head and thorax grey-white, the dorsum of thorax irrorated with black; palpi with black marks at sides of 2nd and 3rd joints; fore and hind tibiæ each with two black spots, the tarsi ringed with blackish and white; abdomen whitish suffused with brown. Fore wing whitish suffused with olive-green or brown and more or less strongly irrorated with black; subbasal line oblique, black, from costa to submedian fold; antemedial line black, slightly angled outwards at subcostal nervure and excurved below the cell; orbicular and reniform defined by black scales and with tufts of black and white scales in centres, the former round; traces of a dark medial

line, bent outwards to the reniform and incurved below lower angle of cell; postmedial line black, bent outwards below costa, slightly incurved at discal fold and incurved below vein 4, some black points beyond it on costa; subterminal line white defined on each side by black spots or nearly continuous lines, somewhat dentate and angled outwards below vein 7 and at middle; a series of black striæ just before termen; a fine terminal black line; cilia chequered fuscous and whitish. Hind wing whitish more or less strongly suffused with brown, the apical part of terminal area darker; a slight dark discoidal spot; cilia whitish at base, brown at tips; the underside white, the terminal area blackish from apex to vein 2, a blackish discoidal spot and traces of a postmedial line.

Hab. Queensland, Brisbane (*Turner*), 1 ♂, 1 ♀; N. S. Wales, Sydney (*Raynor*), 2 ♂, 2 ♀. *Exp.* 24–26 millim.

6710. **Calathusa metableta.** (Plate CLXXXIV. fig. 19.)

Corula metableta, Turner, Pr. Linn. Soc. N. S. W. xxvii. p. 98 (1902).

♂. Head and thorax grey mixed with dark brown; the patagia at base with some black; abdomen white, tinged with ochreous towards extremity. Fore wing grey suffused with brown and slightly irrorated with black; subbasal line slight, black, excurved below costa and ending at submedian fold; antemedial line black, oblique, slightly sinuous; orbicular and reniform small, defined by blackish, the former round; a slight blackish medial shade, oblique from costa to lower angle of cell; postmedial line black, slightly defined on outer side by whitish, oblique from costa to below vein 7, slightly incurved at discal fold, incurved below vein 4; a faint maculate whitish subterminal line slightly defined on each side by brown and somewhat excurved below vein 7 and at middle; a fine black line just before termen and fine terminal line; cilia intersected with blackish. Hind wing whitish suffused with brown, the terminal area somewhat darker; the underside white, the veins tinged with brown, the terminal area suffused with black except at tornus.

Hab. Queensland, Moreton Bay (*Diggles*), 1 ♂. *Exp.* 32 millim.

*6711. **Calathusa eremna.** (Plate CLXXXIV. fig. 20.)

Corula eremna, Turner, Pr. Linn. Soc. N. S. W. xxvii. p. 100 (1902).

♂. Head and thorax dark grey irrorated with black; abdomen brownish, the ventral surface white. Fore wing dark grey tinged with brown and strongly irrorated with black; a curved black subbasal line from costa to submedian fold; the antemedial line oblique, black, slightly sinuous; traces of a medial line; the orbicular and reniform outlined in black and with tufts of scales on them; the postmedial line black, strongly bent outwards below costa and at vein 4 strongly incurved, with an indistinct line on its outer edge; the subterminal line double, waved, acutely angled

inwards in discal and submedian fold, where it is connected with the postmedial line by a tuft of black scales and whitish streak on vein 2; a black line before termen and a fine line on termen. Hind wing whitish tinged with brown, the termen with fuscous; the underside white with fuscous terminal band from costa to vein 2.

Hab. Queensland, Kuranda, type † ♂ in Coll. Turner. *Exp.* 24 millim.

*6712. **Calathusa delosticha.** (Plate CLXXXIV. fig. 21.)

Corula delosticha, Turner, Tr. R. Soc. S. Austr. xxviii. p. 215 (1904).

♂. Head, tegulæ, and fore coxæ rufous; thorax grey with slight brown streaks; abdomen fuscous grey. Fore wing grey; the veins, cell, and submedian fold strongly streaked with black; some blackish irroration on costal and inner areas; antemedial line represented by an oblique black striga from costa to middle of cell; a double waved postmedial line of raised black scales, slightly incurved at discal and submedian folds, filled in with rufous and with a slight waved black line beyond it; three black points on costa towards apex. Hind wing brownish grey with broad fuscous terminal band except towards tornus, diffused on inner side; cilia grey-white. Underside of fore wing fuscous, the costa grey-white with four black points on it towards apex.

Hab. Queensland, Eumundi, type † ♂ in Coll. Turner. *Exp.* 26 millim.

Larva on *Casuarina*.

Genus **AQUIS.**

	Type.
Aquis, Wlk. xv. 1652 (1858)	*viridisquama.*
Bantana, Wlk. Journ. Linn. Soc., Zool. vii. p. 52 (1864) ...	*albida.*
Dimirica, Wlk. Journ. Linn. Soc., Zool. vii. p. 56 (1864) ...	*viridisquama.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd long; frons smooth; eyes large, round; antennæ of male typically with long fasciculate cilia; thorax clothed almost entirely with scales, the prothorax without crests, the metathorax with depressed crest; tibiæ moderately fringed with hair; abdomen with dorsal crests on basal segments. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with veins 3, 4 strongly stalked; 5 fully developed from angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. (*Aquis.*) Antennæ of male with long fasciculate cilia.

A. Fore wing with the postmedial line bent outwards below costa and incurved below vein 4.....	*viridisquama.*
B. Fore wing with the postmedial line oblique from costa to vein 4.....	*aquisoides.*

6713. Aquis viridisquama.

Aquis viridisquama, Wlk. xv. 1652 (1858).
Dimirica nubifera, Wlk. Journ. Linn. Soc., Zool. vii. p. 56 (1864).
Aquis albosparsa, Wlk. xxxii. 611 (1865).

Head and thorax white mixed with dark red-brown; tegulæ with white lines at middle and tips; tarsi ringed with white; abdomen brown with some white at base. Fore wing dark red-brown irrorated with raised white scales and with patches of white especially on basal area and postmedial costal area; antemedial line ill-defined, brown, waved, from below costa to inner margin, a white band on its inner side; tufts of raised scales at middle of

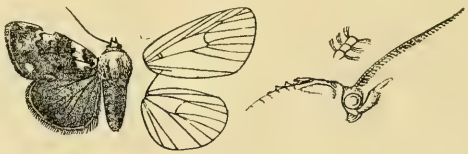


Fig. 146.—*Aquis viridisquama*, ♂. ½.

cell and upper angle; postmedial line brown, traversing the white patch on costal area, bent outwards below costa, slightly incurved below vein 7, incurved and minutely waved below vein 4; some white points on costa towards apex; subterminal line brown defined on outer side by slight white spots, angled outwards below vein 7, then slightly waved; cilia intersected with white. Hind wing dark red-brown.

Hab. Selangor, Semangho (*Robinson*), 1 ♂; Singapore (*Ridley*), 2 ♂; Borneo, Sarawak (*Wallace*), 4 ♂ type and type *nubifera*, Kuching (*Shelford*), 1 ♂; Java (*Horsfield*), 1 ♀ type *albosparsa*. *Exp.* 26–34 millim.

6714. Aquis aquisoides. (Plate CLXXXIV. fig. 22.)

Nanaguna aquisoides, Swinh. A. M. N. H. (7) xv. p. 156 (1905).

Head and thorax white mixed with dark brown; tegulæ brown at base, white at tips; tarsi brown ringed with white; abdomen brown with faint pale segmental lines. Fore wing fuscous brown irrorated with raised silvery scales, the basal area from costa to vein 1 and the postmedial area from costa to discal fold brownish white; subbasal line represented by a brownish striga from costa; antemedial line brown, sinuous, from cell to inner margin; some dark points on medial part of costa; tufts of raised scales at middle and upper angle of cell; traces of a medial line from lower angle of cell to inner margin; postmedial line dark brown, oblique from costa to vein 4, then inwardly oblique and sinuous; some small brown spots on apical part of costa; subterminal line brown defined on outer side by small white spots, dentate at veins 7, 6, excurved at middle and angled inwards at discal and submedian

folds; cilia with slight whitish spots at base. Hind wing brown, with a whitish tinge in male; the underside whitish suffused with brown.

Hab. Assam, Khásis, 2 ♂, 1 ♀ type. *Exp.* 30 millim.

Sect. II. (*Bantana.*) Antennæ of male almost simple.

A. Fore wing with large white patch on medial and post-medial areas except towards costa ..... *albida.*
B. Fore wing without white patch on medial and postmedial areas ..... *orbicularis.*

*6715. Aquis albida. (Plate CLXXXIV. fig. 23.)

Bantana albida, Wlk. Journ. Linn. Soc., Zool. vii. p. 52 (1864); Swinh. Cat. Het. Mus. Oxon. ii. p. 82; pl. ii. f. 12.

♂. Head and thorax red-brown mixed with some white, the vertex of head whitish; tegulæ with the posterior half whitish with a brownish line near tips; tibiæ and tarsi ringed with white; abdomen red-brown. Fore wing whitish suffused with red-brown leaving an antemedial whitish patch on costa and a patch on medial area from the antemedial line to just beyond the post-medial line except towards costa; traces of a curved dark subbasal line from costa to submedian fold; antemedial line indistinctly double filled in with whitish, waved, oblique from costa to submedian fold, a patch of dark suffusion beyond it in and below cell with a small dark lunule on it representing the orbicular; medial line outwardly oblique from discal fold to inner margin; post-medial line with blackish spot at costa, slightly bent outwards below costa, oblique and slightly sinuous to vein 4, then incurved, some blackish points beyond it on costa; subterminal line rather diffused, blackish, excurved below vein 7 and at middle and bent outwards to tornus; a series of pale striæ at base of costa. Hind wing reddish brown; the underside paler.

Hab. Borneo, Sarawak (*Wallace*), type † ♂ in Mus. Oxon. *Exp.* 28 millim.

6716. Aquis orbicularis.

Dioncа orbicularis, Wlk. xv. 1804 (1858); Hmpsn. Moths Ind. ii. p. 375.
Labanda griseinigra, Hmpsn. Moths Ind. ii. p. 374 (1894).
Labanda crenulata, Beth.-Baker, Nov. Zool. xiii. p. 221 (1906).
Blenina babooni, Beth.-Baker, Nov. Zool. xiii. p. 223 (1906).

Head and thorax fuscous black mixed with grey; pectus and legs ochreous white, the tibiæ and tarsi banded with black; abdomen fuscous brown mixed with grey, the crests blackish, the ventral surface grey. Fore wing grey suffused with fuscous and irrorated with black; an indistinct black subbasal line from costa to submedian fold; antemedial line oblique, blackish, sinuous, defined on outer side by some golden scales; a small black discoidal spot with some golden scales on its outer side; postmedial line

indistinct, blackish, minutely dentate, excurved from costa to vein 4, then slightly incurved, defined on inner side by some golden scales; subterminal line grey defined on inner side by

Fig. 147.—*Aquis orbicularis*, ♂. ½.

some golden scales, minutely dentate, excurved below vein 7 and at middle; a terminal series of minute black points. Hind wing fuscous brown with a fine pale line at base of cilia; the underside greyer.

Ab. 1. Fore wing with black mark in submedian fold before antemedial line.

Ab. 2. Fore wing with basal half grey-white and without golden scales.

Ab. 3. Similar but fore wing with black patch at base of costa.

Ab. 4. Similar to ab. 2 but fore wing with black streak in submedian fold before the antemedial line, and spot beyond it.

Ab. 5. *babooni*. Similar to ab. 2 but fore wing with the grey produced on inner area to tornus.

Ab. 6. *crenulata*. Fore wing with both basal and terminal areas grey, a black band on outer medial area.

Ab. 7. Similar but fore wing with black patch at base of costa.

Ab. 8. Fore wing grey with black patch at base of costa and fascia below the cell from base to termen.

Ab. 9. The type. Fore wing deep purple irrorated with fulvous yellow especially on antemedial area, the postmedial and terminal areas white irrorated with fulvous yellow except towards costa.

Hab. Sikhim (*Pilcher*, *Dudgeon*, *Möller*), 8 ♂, 14 ♀; Ceylon, (*Templeton*), 1 ♂ type, Wattegama (*Green*), 1 ♂; Singapore (*Ridley*, *Wood-Jones*), 1 ♂, 2 ♀; Borneo, Sandakan (*Pryer*), 1 ♀; Dutch N. Guinea, Fak-fak (*Pratt*), 1 ♂; Br. N. Guinea, types † *crenulata* and *babooni* in Coll. Bethune-Baker. *Exp.* 22–28 millim. Type *griseinigra* † in Coll. Rothschild.

Genus **BARASA**.

	Type.
Barasa, Wlk. Journ. Linn. Soc., Zool. vi. p. 192 (1862).....	*acronyctoides*.
Ceparcha, Meyr. Trans. Ent. Soc. 1889, p. 476	*cymatistis*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and moderately scaled, the 3rd long; frons smooth, with ridge of scales above; eyes large, round; antennæ of male with fascicles of long cilia; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with depressed crest; tibiæ moderately fringed with hair; abdomen with dorsal crests on three basal segments. Fore wing with the apex

rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a short and typically broad areole; 11 from cell. Hind wing with veins 3, 4 stalked; 5 fully developed from well above angle; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

Sect. I. Fore wing of male with antemedial tuft of long hair from vein 1 on underside; vein 7 from end of areole which is short and broad.

A. Fore wing with the postmedial line incurved below vein 4 ..... *acronyctoides.*
B. Fore wing with the postmedial line excurved and minutely dentate from below costa to inner margin.
a. Fore wing with blackish patch at middle of costa ..... *cymatistis.*
b. Fore wing without blackish patch at middle of costa ... *griseola.*

6717. Barasa acronyctoides.

Barasa acronyctoides, Wlk. Journ. Linn. Soc., Zool. vi. p. 192 (1862); Hmpsn. Moths Ind. ii. p. 377.
Sarrothripa caradrinoides, Snell. Tijd. v. Ent. xxii. p. 94, pl. 10. ff. 10, *a–d* (1879).
Barasa cana, Hmpsn. Ill. Het. B.M. ix. p. 107, pl. 163. f. 5 (1893).

Head and thorax white slightly mixed with brown, the tegulæ with diffused brown medial band; palpi brown at sides; antennæ brown except towards base; legs mostly brown, the tarsi black-brown ringed with white; abdomen white suffused with brown

Fig. 148.—*Barasa acronyctoides*, ♂. ½.

towards extremity, the crests with brown mixed. Fore wing white tinged in parts with brown and irrorated with a few brown scales; subbasal line represented by brown spots on costa and in cell; antemedial line brown with small spot at costa, then slight and sinuous, oblique to submedian fold, then inwardly oblique; tufts of brown scales at middle and upper angle of cell, the latter with spot above it on costa; a waved line from lower angle of cell to inner margin; postmedial line with spot at costa, angled outwards below costa, then sinuous, oblique to vein 5, then inwardly oblique, some small dark spots beyond it on costa; subterminal line dark, punctiform towards costa, then dentate, bent outwards below vein 7; a terminal series of black points and series of small dark spots at base of cilia. Hind wing white, the veins and terminal area tinged with brown. Underside of fore wing of male with the tuft of hair blackish at tips.

Hab. "N.E. Bengal" (*Grote*), 1 ♀ ; Bombay, Kanara, Karwar (*T. R. Bell*), 1 ♀ ; Madras, Wynád (*Cardew*), 1 ♂ ; Ceylon (*Green, Butt*), 3 ♂ type *cana* ; Penang (*Flower*), 1 ♂ ; Singapore (*Ridley*), 5 ♂, 1 ♀ ; Borneo, Sarawak (*Wallace*), 4 ♂, 3 ♀ ; Celebes. *Exp.* 26–34 millim. Type † in Mus. Oxon.

6718. Barasa cymatistis. (Plate CLXXXIV. fig. 24.)

Ceparcha cymatistis, Meyr. Trans. Ent. Soc. 1889, p. 476.

Head and thorax white mixed with fuscous; palpi black-brown except at tips; frons black-brown; antennæ fuscous; tegulæ black, white at tips; legs mostly brown, the tarsi black-brown ringed with white; abdomen whitish suffused with brown. Fore wing white tinged and irrorated with brown; a subbasal dark point on costa; antemedial line with dark point at costa, then almost obsolete and very oblique to submedian fold where it is acutely angled, then incurved; slight tufts of blackish scales at middle and upper angle of cell and a diffused black-brown patch on middle of costa; postmedial line with black striga from costa, then very indistinct and oblique to vein 6 where it is angled, then inwardly oblique and punctiform, some blackish points beyond it on costa; subterminal line rather diffused, brown, very oblique from costa to vein 6 and somewhat excurved at middle; a terminal series of slight dark points and a series at base of cilia which are brownish. Hind wing white, the veins and terminal area tinged with brown; the underside with the costal area suffused with brown.

Hab. New Guinea, type † ♀ in Coll. Meyrick; Queensland, Mackay, 1 ♂. *Exp.* 32 millim.

*6719. Barasa griseola. (Plate CLXXXIV. fig. 25.)

Barasa griseola, Beth.-Baker, Nov. Zool. xiii. p. 221 (1906).

♂. Head and thorax white mixed with red-brown, the tips of tegulæ and the prothorax pure white; palpi rufous except at tips; tarsi black-brown ringed with white; abdomen white tinged with ochreous, the crests and anal tuft with brown mixed. Fore wing with the basal half and inner area white slightly mixed with brown and black scales, the terminal half pale red-brown mixed with white except before postmedial line where it is tinged with ochreous; costal edge brown; subbasal line represented by a black point below costa; antemedial line hardly traceable, angled outwards in submedian fold, then incurved and excurved at vein 1; a minute black lunule in end of cell and a black point beyond its upper angle with a brown mark above it on costa; postmedial line brown, incurved below costa, then excurved and very minutely dentate; subterminal line diffused, brown, oblique towards costa, strongly excurved below vein 7 and slightly at middle. Hind wing

white, the apical area suffused with red-brown; cilia red-brown to vein 2, then white; the underside with the apical area and termen to vein 2 tinged with brown.

Hab. Br. New Guinea, Ekeikei (*Pratt*), type † ♂ in Coll. Bethune-Baker, Mt. Kebea. *Exp.* 32 millim.

Sect. II. Fore wing of male without tuft of hair on underside; vein 7 from beyond the areole which is narrower.

A. Fore wing without dark patch at base of costal area.
  a. Fore wing with the subterminal line slight and excurved below vein 7.
    *a*¹. Fore wing with the postmedial line strongly incurved below vein 4 and excurved above inner margin ... *alopha*.
    *b*¹. Fore wing with the postmedial line incurved from vein 4 to inner margin ..... *costalis*.
  b. Fore wing with the subterminal line strong and not excurved below vein 7 ..... *tetragramma*.
B. Fore wing with dark patch at base of costal area ..... *basigerella*.

6720. Barasa alopha.

Barasa alopha, Hmpsn. Moths Ind. iv. p. 525 (1896).

♂. Head, thorax, and abdomen white mixed with brown; palpi blackish at sides; tarsi blackish ringed with white. Fore wing white tinged with red-brown and slightly irrorated with black; a slight blackish streak in base of cell; antemedial line blackish, curved, waved, interrupted; tufts of raised whitish scales at middle and upper angle of cell; postmedial line blackish slightly

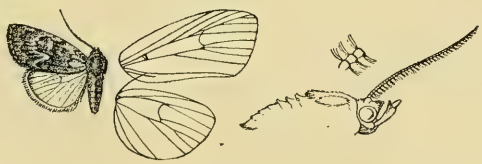


Fig. 149.—*Barasa alopha*, ♂. ½.

defined on outer side by white, bent outwards below costa, excurved and minutely waved to vein 4, then strongly incurved and again strongly excurved at vein 1; subterminal line defined on inner side by blackish suffusion, excurved below vein 7 and at middle and angled inwards at discal and submedian folds, the veins beyond it streaked with black. Hind wing semihyaline white, the apex tinged with brown; a fine terminal brown line.

♀. Much whiter and with hardly a trace of the brown tinge.

Hab. Bombay, Thanna Distr., Wangni (*Swinhoe*), 1 ♂ type; Ceylon, Putlam (*Pole*), 1 ♀. *Exp.* 24–26 millim.

6721. **Barasa costalis.** (Plate CLXXXIV. fig. 26.)

Barasa costalis, Hmpsn. Trans. Ent. Soc. 1895, p. 305; id. Moths Ind. iv. p. 525.

Head and thorax white slightly mixed with fuscous; palpi with the 2nd joint black at sides except towards extremity; tarsi blackish ringed with white; abdomen white dorsally tinged with fuscous leaving white segmental lines. Fore wing chalky-white slightly irrorated with fuscous, some black points on basal half of costa; a diffused fuscous subbasal line from costa to vein 1; antemedial line fuscous, erect, minutely waved; a slight patch of fuscous suffusion at middle of cell and a patch on costa above end of cell; postmedial line fuscous with black point at costa, bent outwards below costa, then minutely waved, incurved below vein 4, some black points beyond it on costa; subterminal line fuscous, minutely dentate, angled outwards below vein 7 and at middle; a terminal series of small white spots defined by fuscous. Hind wing white, the veins and terminal area tinged with fuscous; the underside with the costal area suffused with brown.

Hab. Sikhim, ♂ in Mus. Calcutta; Bhután (*Dudgeon*), 1 ♀ type. *Exp.* 30 millim.

6722. **Barasa tetragramma.** (Plate CLXXXIV. fig. 27.)

Barasa tetragramma, Hmpsn. A. M. N. H. (7) xvi. p. 549 (1905); Rebel, Denk. math.-nat. Wissens. lxxxv. p. 13, pl. 18. f. 13 (1910).

♀. Head and thorax white slightly irrorated with fuscous; palpi with black mark at side of 2nd joint; fore tibiæ blackish on inner side, the tarsi blackish at extremity; abdomen white tinged with grey above, the basal crest blackish at tip. Fore wing grey-white irrorated with fuscous, the medial and terminal areas slightly tinged with brown; a slight black streak in base of cell; a strong obliquely curved black subbasal line from costa to submedian fold; a highly waved medial line with traces of another line before it; a slight diffused rufous discoidal mark; postmedial line bent outwards below costa, incurved at discal fold and below vein 4, angled outwards at vein 1; subterminal line strong, black, not quite reaching costa on which there is a black point, met below costa by an oblique shade from apex, slightly excurved at middle; a terminal series of minute black streaks. Hind wing white, the apical area tinged with brown down to vein 2; the underside with the costal area tinged with brown.

Hab. Fiji, 1 ♀ type; Samoa, Malifa. *Exp.* 28 millim.

6723. **Barasa basigerella.** (Plate CLXXXIV. fig. 28.)

Subrita basigerella, Wlk. xxxv. 1748 (1866).

♀. Head, thorax, and abdomen grey mixed with brown; fore tarsi blackish ringed with white, base of mid tarsi blackish. Fore

wing grey suffused and irrorated with brown ; a dark brown patch on basal costal area defined by the curved blackish subbasal line ; antemedial line blackish, rather oblique, sinuous ; a slight discoidal striga ; postmedial line blackish, oblique from below middle of costa to vein 4, then incurved, a dark patch beyond it on costa ; subterminal line whitish defined on inner side by blackish, minutely waved, excurved below vein 7 and at middle and angled inwards at discal fold ; a terminal series of black points. Hind wing whitish suffused with brown, the cilia pale at tips.

Hab. Flores (*Wallace*), 1 ♀ type ; Br. N. Guinea. *Exp.* 20 millim.

Genus **LABANDA.**

	Type.
Labanda, Wlk. xvii. 284 (1859)	*herbealis.*
Bariana, Wlk. xxxii, 603 (1865)	*submuscosa.*
Lazanda, Wlk. xxxii. 604 (1865)	*fasciata.*
Gerbatha, Wlk. xxxiii. 913 (1865)	*semipars.*

Probcscis fully developed ; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd long and somewhat dilated at extremity ; frons smooth ; eyes large, round ; antennæ of male ciliated ; thorax clothed almost entirely with scales, the metathorax with depressed crest ; build slender ; tibiæ smoothly scaled ; abdomen with dorsal crests on two basal segments, very long and slender in male. Fore wing with the apex rounded, the termen evenly curved and not crenulate ; veins 3 and 5 from near angle of cell ; 6 from upper angle ; 9 from 10 anastomosing with 8 to form a long areole ; 11 from cell. Hind wing with veins 3, 4 from angle of cell ; 5 fully developed from above angle ; 6, 7 from upper angle ; 8 anastomosing with the cell near base only.

A. Hind wing yellow ..... *huntei.*
B. Hind wing fuscous brown.
  a. Hind wing with yellow terminal band from apex to vein 2 ..... *ceylusalis.*
  b. Hind wing without yellow terminal band.
    a^1. Fore wing with more or less green.
      a^2. Fore wing with the ante- and postmedial lines filled in with white except towards costa ..... *chloromela.*
      b^2. Fore wing without white on ante- and postmedial lines.
        a^3. Hind wing on underside without white postmedial band.
          a^4. Fore wing bright blue-green ..... *viridalis.*
          b^4. Fore wing dull yellow-green.
            a^5. Fore wing with the postmedial line bent outwards below costa.
              a^6. Fore wing with the subbasal line excurved below costa ..... *fasciata.*
              b^6. Fore wing with the subbasal line straight.
                a^7. Fore wing with the antemedial line angled outwards below costa ..... *saturalis.*
                b^7. Fore wing with the antemedial line not angled outwards below costa ... *achine.*
            b^5. Fore wing with the postmedial line oblique from costa to vein 6 ..... *dentilinea.*
        b^3 Hind wing on underside with white postmedial band.
          a^4. Fore wing with the postmedial line strongly dentate below costa ..... *herbealis.*

b^1. Fore wing with the postmedial line not strongly dentate below costa ..... *submuscosa.*
b^1. Fore wing brown and grey without any green.
a^2. Hind wing with slight whitish marks on termen from apex to vein 2 ..... *semipars.*
b^2. Hind wing without whitish marks on termen ..... *umbrosa.*

*6724. **Labanda huntei.** (Plate CLXXXIV. fig. 29.)

Labanda huntei, Warr. Nov. Zool. x. p. 125 (1903).
Labanda viridescens, Beth.-Baker, Nov. Zool. xiii. p. 220 (1906).

♀. Head and thorax olive-green mixed with red-brown; palpi rufous at base, brown in front and at tips; pectus and legs rufous, the latter tinged with brown; abdomen orange-red, the crests and extremity brown, the ventral surface whitish. Fore wing olive-green suffused and irrorated with brown; an ill-defined oblique waved subbasal green band from costa to vein 1; antemedial line green, rather diffused towards costa, angled inwards on median nervure and strongly excurved below submedian fold; a dark discoidal spot; postmedial line black-brown defined on outer side by green, bent outwards below costa, then dentate, incurved below vein 3 and angled outwards at vein 1; a diffused dentate dark band from postmedial part of costa to tornus; an oblique blackish band from costa near apex to termen at vein 6 and an oblique dentate band from vein 6 to termen at vein 3; cilia brown with a fine green line at base. Hind wing orange-red, the apex and a fine terminal line red-brown; cilia red-brown; the underside with the apical area and termen black-brown.

Hab. Br. N. Guinea (*Le Hunte*), type † ♀ in Coll. Rothschild, Mt. Kebea (*Pratt*), type † ♀ *viridescens* in Coll. Bethune-Baker. *Exp.* 36 millim.

6725. **Labanda ceylusalis.**

Labanda ceylusalis, Wlk. xix. 919 (1859); Swinh. Cat. Het. Mus. Oxon. ii. p. 82, pl. ii. f. 1.

Head and thorax green mixed with dark brown; tegulæ brown at tips; palpi and antennæ pale red-brown; pectus and legs whitish tinged with red-brown; abdomen brown, the crests blackish, the ventral surface whitish. Fore wing pale green thickly irrorated and in parts suffused with dark brown, the terminal area without dark irroration; a blackish subbasal striga from costa; antemedial line white with a narrow black band on its inner side and fine line on outer, slightly incurved in cell and excurved below it; a short diffused blackish fascia beyond the cell; postmedial line white, oblique and defined on inner side by a fine dark line from costa to vein 6, then slight and dark, curved inwards below vein 4 to lower angle of cell, then dentate; subterminal line represented by a diffused black patch from costa to vein 6, then by dentate black marks between veins 6 and 3 and a rather diffused bar to tornus;

a black-brown terminal line; cilia brown with a fine ochreous line at base. Hind wing brown, the terminal area yellow from apex to vein 2 where it narrows to a point, its inner edge somewhat irregular, with slight brown striæ on termen; cilia yellow to submedian fold.

Hab. Singapore (*Ridley*), 1 ♀; Borneo, Sarawak (*Bartlett*), 1 ♂, Kuching (*Shelford*), 1 ♂. *Exp.* ♂ 36, ♀ 44 millim. Type † in Mus. Oxon.

6726. Labanda chloromela.

Diomea chloromela, Wlk. xv. 1804 (1858); Hmpsn. Ill. Het. B.M. ix. p. 133, pl. 168. f. 5; id. Moths Ind. ii. p. 375.

♀. Head and thorax dark brown mixed with some grey; palpi ringed with white; tegulæ with green medial band and white tips; patagia with green patches; pectus and legs pale brown, the tibiæ and tarsi dark brown ringed with white; abdomen brown, the crests blackish, the ventral surface whitish. Fore wing yellow-green, the antemedial area to submedian fold, the greater part of medial area, the postmedial costal area and the terminal area suffused with black-brown; two black points on costal area near base; subbasal line black defined on inner side by white, from costa to submedian fold; antemedial line double, black filled in with white, excurved below costa and bent outwards below submedian fold, a small black spot on its outer edge in cell and a small discoidal spot; postmedial line double, black filled in with white, obliquely incurved from costa to vein 6, slightly incurved at discal fold, incurved and minutely waved below vein 4, two white points beyond it on costa; subterminal line white, excurved below costa, then crenulate: cilia dark brown with a fine white line at base. Hind wing dark brown; the underside greyer with a faint dark postmedial shade from costa to lower angle of cell.

Hab. Ceylon (*Templeton*), 1 ♀ type. *Exp.* 26 millim.

6727. Labanda viridalis. (Plate CLXXXIV. fig. 30.)

Labanda viridalis, Swinh. A. M. N. H. (7) xv. p. 156 (1906).

Head and thorax blue-green mixed with some brown; pectus and legs white, the tibiæ and tarsi blackish ringed with white; abdomen whitish suffused with brown, the crests black. Fore wing blue-green irrorated with white, the basal area suffused with black; subbasal line black defined on each side by blue-green and white, angled outwards above inner margin; antemedial line black, oblique, slightly waved; a narrow black discoidal lunule and some black suffusion at middle of costa; postmedial line black with white points before and beyond it at costa, minutely waved, oblique to vein 5, then incurved and excurved at vein 1, some black suffusion beyond it on costal area with two white points on the costa;

subterminal line white defined on inner side by somewhat dentate black marks with more prominent marks above vein 6 and above and below vein 5, oblique from costa to termen at vein 6, then slightly waved, angled inwards at discal fold and vein 2; a terminal series of black striæ; cilia chequered blackish and green. Hind wing fuscous brown, the cilia whitish at tips; the underside greyer.

Hab. Assam, Khásis, 1 ♂, 2 ♀ type; Straits Settlements, Dinding I. (*Ridley*), 1 ♀. *Exp.* 26–34 millim.

6728. **Labanda fasciata.**

Labanda fasciata, Wlk. xxxii. 605 (1865); Hmpsn. Ill. Het. B.M. ix. p. 132, pl. 167, f. 14; id. Moths Ind. ii. p. 374.
Diomea muscosa, Wlk. xxxiii. 898 (1865).

Head and thorax pale green mixed with black; frons whitish; palpi whitish and fuscous; pectus and legs whitish, the tibiæ and tarsi banded with fuscous; abdomen fuscous brown, the ventral surface white. Fore wing grey-brown thickly irrorated with black; subbasal line black, sinuous, from costa to submedian fold; antemedial line black, oblique, waved; a black point in middle of cell and small spot at lower angle; a more or less distinct incurved dark shade from lower angle of cell to inner margin; postmedial line black, with small blackish spot at costa, bent outwards below costa, then waved, incurved at discal fold; subterminal line rather diffused, black, dentate, angled outwards below vein 7 and at middle; a terminal series of small triangular blackish spots; some slight whitish striæ at base of cilia. Hind wing fuscous brown with slight whitish striæ at base of cilia; the underside rather greyer brown.

Ab. 1. The type. Fore wing with broad diffused black band on medial area.

Ab. 2. Fore wing with more or less white suffusion on medial area.

Hab. Madras, Nilgiris (*Lindsay*, *Hampson*), 2 ♂, 5 ♀; Ceylon (*Lindesay*), 3 ♂, 3 ♀, Kandy (*Green*), 1 ♂, 1 ♀, Naragam (*Yerbury*), 1 ♂, 1 ♀, Haldamulla (*Yerbury*), 1 ♀, Habarane (*Yerbury*), 1 ♀; Burma, Moulmein (*Clerk*), 1 ♀ type. *Exp.* 34–42 millim.

Cocoon. Formed of yellow silk, elliptical with an elliptical opening in dorsal surface shewing the red-brown pupa.

6729. **Labanda saturalis.** (Plate CLXXXIV. fig. 31.)

Labanda saturalis, Wlk. xxxiv. 1251 (1865); Hmpsn. Moths Ind. ii. p. 375.
Bocana viridalis, Moore, P. Z. S. 1867, p. 88.

Head and thorax brown mixed with bright green, palpi brown, the 2nd joint whitish in front and behind; frons white at sides

and below; antennæ brown with the basal joint white in front; tegulæ green, black at base and brown at tips; pectus and legs white, the tibiæ and tarsi banded with brown; abdomen grey-brown, the ventral surface ochreous white. Fore wing bright yellow-green thickly irrorated with black-brown; some brown at base of inner margin; a black striga from costa near base; subbasal line double, from costa to submedian fold; antemedial line indistinct, double, waved; a small black discoidal lunule; postmedial line rather indistinct, bent outwards at vein 6, then waved, bent inwards in submedian interspace; some whitish points on costa towards apex; a diffused waved black subterminal line, excurved below vein 7 and at middle and incurved at discal fold and below vein 3; a black terminal line; cilia brown with a fine whitish line at base. Hind wing dark brown, the cilia with a fine whitish line at base and whitish tips; the underside grey-brown.

Hab. "India," 1 ♂ type; Sikhim (*Russell*), 1 ♂, 1 ♀ type *viridalis*; Assam, Khásis, 1 ♂, 1 ♀; Madras, Nilgiris (*Hampson*), 1 ♂; Travancore, Pirmád (*Imray*), 1 ♂, 1 ♀; Burma, E. Pegu; Borneo, Sandakan (*Pryer*), 1 ♀; Ceram (*Schultz*), 1 ♀. *Exp.* 28–36 millim.

6730. Labanda achine.

Bocana achine, Feld. Reis. Nov. pl. 120. f. 18 (1874); Hmpsn. Moths Ind. ii. p. 375.

Head and thorax brown mixed with grey; palpi purplish fuscous, white in front and the 2nd joint white behind; frons white at sides and with green stripe at middle; tegulæ with purplish bands at base and middle and green band between them; pectus and legs white, the fore and mid tibiæ and tarsi banded with purple; abdomen brown, the ventral surface ochreous white. Fore wing green thickly irrorated with brown, the outer part of medial area and the terminal area browner; subbasal line dark defined on each side by green, from costa to submedian fold; antemedial line dark defined on each side by green, very slightly excurved below costa, excurved and waved below submedian fold; a black discoidal spot; postmedial line dark defined on outer side by green, oblique from below costa to vein 6, slightly incurved at discal fold, incurved below vein 4 and excurved at vein 1; subterminal line rather diffused, green defined on inner side by dark brown, angled inwards at discal fold, waved at veins 4, 3, then slightly bent inwards and oblique to tornus; cilia brown with a fine whitish line at base. Hind wing dark brown with a fine whitish line at base of cilia; the underside greyer.

Ab. 1. Fore wing with dark suffusion on postmedial area.

Ab. 2. Fore wing with some white suffusion beyond antemedial line.

Hab. Ceylon (*Lindesay*), 1 ♀, Dickoya (*Green*), 3 ♂, 3 ♀. *Exp.* 30–36 millim.

6731. Labanda dentilinea. (Plate CLXXXIV. fig. 32.)

Moca dentilinea, Wlk. xxvii. 103 (1863).
Cryptolechia attenuatalis, Wlk. xxx. 1036 (1864).

Head and thorax brown mixed with grey; palpi pale brown; lower part of frons white; pectus and legs whitish, the tibiæ and tarsi brown ringed with white; abdomen grey-brown, the crests blackish, the ventral surface whitish. Fore wing green thickly irrorated and suffused with brown; subbasal line double filled in with green, slightly angled outwards below costa and ending at submedian fold; antemedial line double filled in with green, strongly dentate; postmedial line dark defined on outer side by green, oblique from costa to vein 6, angled inwards at discal fold, then dentate, some white points beyond it on costa; subterminal line fine, green, oblique from costa to vein 6, forming a spot at discal fold, then waved; the termen dark brown; cilia brown with a fine white line at base. Hind wing brown with a fine white line at base of cilia. Underside whitish, tinged with brown; fore wing with black terminal line defined on inner side by a narrow white band angled inwards at discal fold; hind wing with white spots on apical part of termen.

Hab. Borneo, Sarawak (*Wallace*), 1 ♂, 1 ♀ type and type *attenuatalis*, Kuching (*Shelford*), 1 ♂, Sandakan (*Pryer*), 1 ♂. *Exp.* 16 millim.

6732. Labanda herbealis.

Labanda herbealis, Wlk. xvii. 284 (1859); Hmpsn. Ill. Het. B.M. ix. p. 133, pl. 168. f. 9; id. Moths Ind. ii. p. 375.

Head and thorax brown mixed with grey; palpi brown; lower part of frons white; pectus and legs white, the fore tibiæ and tarsi brown ringed with white; abdomen grey-brown, the crests blackish, the ventral surface white towards base. Fore wing

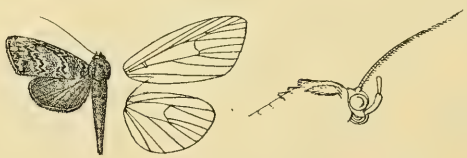


Fig. 150.—*Labanda herbealis*, ♂. ½.

yellow-green irrorated and in parts suffused with brown; subbasal line brown defined on each side by grey, on outer side the green extending to vein 1, dentate; antemedial line double filled in with green, dentate, strongly angled outwards on subcostal nervure; postmedial line double filled in with green, bent outwards below

costa, then dentate, angled inwards above and below discal fold, some white points beyond it on costa; subterminal line slight, white defined on inner side by dentate brown marks, minutely dentate, incurved at discal fold; termen dark brown; cilia whitish with a black-brown line through them. Hind wing dark greyish brown with a fine whitish line at base of cilia; the underside white with brown postmedial band and broad terminal band from costa to submedian fold.

Hab. Ceylon (*Templeton*), 2 ♂ type, Maskelyia (*Pole*), 1 ♂, Dickoya (*Green*), 1 ♀. *Exp.* 26 millim.

6733. Labanda submuscosa.

Bariana submuscosa, Wlk. xxxii. 604 (1865); Hmpsn. Moths Ind. ii. p. 375.
Labanda graminalis, Hmpsn. Ill. Het. B.M. ix. p. 133, pl. 167. f. 23 (1893).

♂. Head and thorax brown mixed with grey; palpi brown with some white at base and at extremity of 2nd and base of 3rd joint; lower part of frons white; pectus and legs white, the fore and mid tibiæ and tarsi with blackish bars above; abdomen white, dorsally suffused with brown, the crests blackish. Fore wing yellow-green thickly irrorated with black-brown; subbasal line blackish defined on outer side by green, slightly angled outwards below costa and ending at submedian fold; antemedial line double filled in with green, oblique, slightly angled outwards below costa, then waved; a black discoidal point; postmedial line defined on outer side by green, oblique from below costa to vein 6 where it is angled outwards, angled inwards at discal fold, below vein 4 slightly sinuous and angled inwards at vein 1, some white points beyond it on costa; subterminal line defined by dark suffusion on inner side, incurved below costa and at discal fold, excurved below vein 7, excurved and waved at middle; a fine black terminal line and white line at base of cilia. Hind wing grey-brown, the cilia with fine white line at base and white tips; the underside white, a brown postmedial band from costa to submedian fold, the terminal area suffused with brown and with slight white marks on termen towards apex.

♀. Tegulæ with green band near base; fore wing with the postmedial line bidentate at vein 6.

Hab. Ceylon, Pundaloya (*Green*), 1 ♂ type *graminalis*; Java (*Horsfield*), 1 ♀ type. *Exp.* ♂ 20, ♀ 28 millim.

6734. Labanda semipars.

Bryophila semipars, Wlk. xv. 1647 (1858); Hmpsn. Ill. Het. B.M. ix. p. 133, pl. 168. f. 3; id, Moths Ind. ii. p. 375.
Bocana pamphosalis, Wlk. xix. 887 (1859).
Gerbatha laticincta, Wlk. xxxiii. 913 (1865).

Head and thorax black-brown mixed with grey; palpi brown,

white above towards base; tegulæ black with whitish medial band; pectus and legs white, the fore and mid tibiæ and tarsi with black bars above; abdomen grey suffused with brown, the crests black, the ventral surface white. Fore wing brownish grey, thickly irrorated with black-brown, the medial area paler; subbasal line black defined on outer side by whitish, bent inwards at subcostal nervure and ending at submedian fold; antemedial line black defined on inner side by whitish, erect, minutely waved; an oblique black striga on upper discocellular; postmedial line black defined on outer side by whitish, oblique to vein 7, then erect and minutely waved; subterminal line whitish defined on inner side by fuscous suffusion, oblique from costa to termen at vein 6, angled inwards at discal fold and outwards to termen at veins 4, 3, then waved; a fine terminal black line; cilia fuscous intersected by pale streaks. Hind wing grey-brown, the termen with slight whitish marks and a fine dark terminal line from apex to vein 2; the cilia with whitish streaks and whitish tips; the underside paler.

Ab. 1. *pamphosalis*. Fore wing with the medial area whiter.

Hab. Punjab, Jubbulpore (*F. Butler*), 1 ♀; Assam, Shillong (*Parish*), 1 ♀; Bombay, 3 ♂, 4 ♀, Kanara, Karwar (*T. R. Bell*), 1 ♂, 1 ♀; Madras, Gooty (*Campbell*), 1 ♂, Nilgiris (*Hampson*), 1 ♂, 3 ♀; Ceylon (*Templeton*), type and types *pamphosalis* and *laticincta*. *Exp.* 24–34 millim.

Cocoon with long horn-like projection set with spines above from upper surface of dorsum in front, and shorter anal projection; yellow with brown subdorsal stripes, the projection brown.

6735. **Labanda umbrosa**, n. sp. (Plate CLXXXV. fig. 1.)

♀. Head and thorax black-brown mixed with grey; pectus and legs ochreous whitish, the tibiæ and fore tarsi banded with blackish; abdomen grey suffused with fuscous brown, the crests black with a metallic gloss, the ventral surface whitish. Fore wing grey thickly irrorated and suffused with black-brown, the medial area with a slight olive-ochreous tinge, subbasal line represented by double fuscous striæ from costa; antemedial line indistinctly double filled in with whitish and defined on inner side by black-brown suffusion, erect and almost straight; an oblique black striga on upper discocellular and a diffused dark shade from costa above end of cell and from lower angle of cell to inner margin; postmedial line blackish, oblique from costa to vein 6, then minutely waved, slightly bent inwards at vein 3; subterminal line whitish defined on inner side by somewhat dentate blackish marks and at discal fold by a black streak extending to near postmedial line, obliquely incurved from costa to near termen at vein 6 below which it is angled inwards, excurved and waved at middle and ending at tornus; a blackish terminal line and fine whitish line at base of cilia, which are blackish. Hind wing fuscous brown, the cilia with

a punctiform white line at base; the underside much greyer and with faint traces of a medial line.

Hab. Burma, Toungoo (*de Nicéville*), 2 ♀ type. *Exp.* 30–32 millim.

Genus **BLENINA**.

	Type.
Blenina, Wlk. xiii. 1214 (1857)	*donans*.
Eliocræa, Wlk. xxxiii. 935 (1865)	*chrysochlora*.
Amrella, Moore, Lep. Atk. p. 158 (1882)	*angulipennis*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and rather slenderly scaled, the 3rd moderate, typically somewhat dilated towards extremity; frons smooth with slight ridge of hair above; eyes large, round; antennæ of male typically minutely ciliated; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with depressed crest; tibiæ moderately fringed with hair; abdomen with dorsal crests on two basal segments. Fore wing with the apex rounded, the termen typically evenly curved and slightly crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with vein 2 from just before angle of cell; 3, 4 from angle; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. (*Eliocræa.*) Palpi of male with the 2nd joint excised in front towards extremity which is produced above to a small shield covering part of the 3rd joint; fore wing with the termen oblique and crenulate from vein 4 to tornus; hind wing with the termen excurved at veins 3, 2.

A. Hind wing orange with incomplete subterminal black band ..... *chrysochlora*.
B. Hind wing black-brown with incomplete orange post-medial band ..... *chlorophila*.

6736. Blenina chrysochlora.

Eliocræa chrysochlora, Wlk. xxxiii. 935 (1865).

Head and thorax bright green, the patagia with slight black bars and greyish tips; palpi ochreous white at base and black above; pectus and legs ochreous white, the fore and mid tibiæ with some green above, the tarsi banded with black; abdomen bright orange, the crests greenish and brown, the anal tuft ochreous white. Fore wing bright green more or less irrorated with white and typically with black irroration on medial area and basal inner area; a small curved black mark at base; some black points on basal part of costa; subbasal line blackish, incurved and slightly waved from below costa to inner margin, a slight oblique green line beyond it; antemedial line almost medial, double, oblique, sinuous; a black discoidal striga; postmedial line double, obliquely excurved and minutely dentate from costa to vein 4, then incurved, and again angled outwards at vein 1; subterminal line blackish, waved, excurved below vein 7 and at middle and angled inwards at submedian fold; a terminal series of minute black points with some

whitish between them; cilia whitish at tips towards apex, tinged with brown and with slight waved black line at middle. Hind wing bright orange; a black apical patch with subterminal band from it to vein 2, or more or less strongly continued to submedian

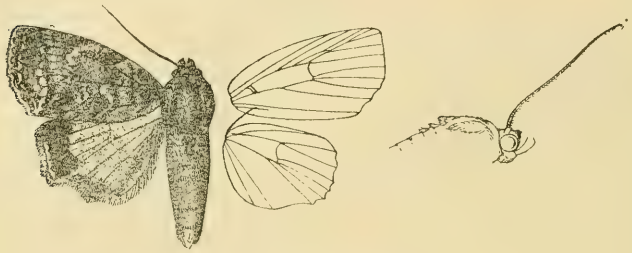


Fig. 151.—*Blenina chrysochlora*, ♂. ½.

fold; some green scales on termen at the lobe, where the cilia are white. Underside of fore wing orange with large fuscous discoidal patch connected with the costa by a bar and broad terminal band from just below costa to submedian fold; hind wing with traces of a postmedial line from costa to vein 2.

Hab. Ceram (*Wallace*), 1 ♀ type; Dutch N. Guinea, Kapaur (*Doherty*), 2 ♂, 1 ♀; Br. N. Guinea, Mt. Kebea (*Pratt*), 2 ♂, Ekeikei (*Pratt*), 3 ♂, 1 ♀. *Exp.* 44–50 millim.

6737. Blenina chlorophila. (Plate CLXXXV. fig. 2.)

Blenina chlorophila, Hmpsn. A. M. N. H. (7) xvi. p. 546 (1905).

Head and thorax bright green slightly irrorated with white; tegulæ and patagia with blackish tips; pectus and legs yellowish, fore tibiæ green in front, the tarsi black ringed with white; abdomen yellow-brown dorsally tinged with fuscous, the crests green and black, the ventral surface yellow, blackish at extremity. Fore wing whitish almost entirely suffused with bright green, the base of inner area tinged with rufous; subbasal line oblique, waved, from costa to submedian fold, with an indistinct green line beyond it from subcostal nervure to submedian fold; a double medial line, incurved in cell and submedian interspace, excurved at median nervure and to inner margin; a slight black discoidal bar; postmedial line double, obliquely excurved and minutely dentate from costa to vein 4, then single, strongly incurved in submedian interspace, then oblique to inner margin and slightly angled outwards on vein 1, a slight line beyond it from vein 5 to 3, where it is bent inwards, then forming a green band with blackish spot on it in submedian fold; subterminal line black, minutely waved, angled outwards at vein 7, excurved at middle, bent inwards at vein 3 and oblique to near tornus; a slight black shade at apex and oblique shade from subterminal

line to middle of termen; a terminal series of black points with white striæ between them; cilia white and green, brownish towards apex, with series of black points on them. Hind wing black-brown, the terminal area darker; an orange postmedial band from vein 6 to 1, incurved below vein 4, obsolescent towards vein 1, and emitting a slight streak towards base in submedian fold; cilia orange, black at apex, and tipped with brown and white above middle. Underside orange; fore wing with oblique black medial band dilated at middle, the terminal area black with sinuous inner edge; hind wing with black medial line from costa to below vein 2, and black terminal band narrowing to a point near tornus.

Hab. Ceylon, Hakgala (*Green*), 1 ♀; Singapore (*Ridley*), 2 ♂ type. *Exp.* 46 millim.

Sect. II. Palpi of male with the 2nd joint excised at extremity and slightly produced above, the 3rd long and with some ribbed scales at sides; fore wing with the termen evenly curved, hind wing with it slightly excurved at veins 3, 2.

6738. Blenina lichenosa.

Blenina lichenosa, Moore, P. Z. S. 1877, p. 607, pl. 60. f. 2; Hmpsn. Moths Ind. ii. p. 378.
Blenina variegata, Moore, Lep. Atk. p. 157 (1882).

Head and thorax olive-green mixed with white and dark brown; palpi at base flesh-coloured; pectus and legs flesh-coloured, the tibiæ streaked with black, the tarsi banded with black; abdomen dark red-brown, the ventral surface yellowish. Fore wing dark green mixed with dark brown and some white; an oblique black striga from base of costa; antemedial line indistinct, oblique, sinuous; a black point in middle of cell and discoidal bar; medial

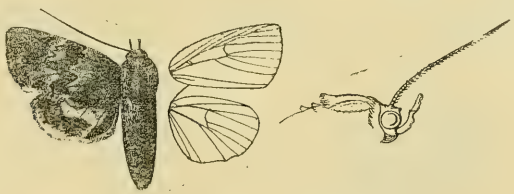


Fig. 152.—*Blenina lichenosa*, ♂. ½.

line black, oblique, sinuous; postmedial line black, oblique and dentate from costa to vein 4, then incurved and again excurved at vein 1, a black patch between it and medial line above vein 1 often present; subterminal line whitish defined on inner side by small black-brown spots and a dentate mark at submedian fold, angled outwards below vein 7 and excurved at middle. Hind wing black-brown; a sinuous orange postmedial band from below vein 6 to

vein 1 ; cilia orange, brown towards apex, and mixed with brown to vein 2. Underside of fore wing brown with some pale yellowish on inner area to beyond middle and on costa beyond the diffused black postmedial band ; hind wing orange with curved black-brown postmedial band from costa to submedian fold, and terminal band.

Ab. 1. Fore wing nearly uniformly suffused with dark brown and with hardly any green.

Ab. 2. Fore wing with the basal and inner areas greener, the rest of wing suffused with black-brown.

Ab. 3. *variegata*. Fore wing largely suffused with white, often with oblique black fascia from upper angle of cell to termen at submedian fold.

Ab. 4. Fore wing much greyer; hind wing with the postmedial band narrow and pale.—Straits Settlements, Borneo.

Hab. Sikhim (*Atkinson*, *Möller*), 2 ♂ type *variegata* ; Assam, Nágas ; Andamans (*Rogers*), 1 ♂, 3 ♀ type ; Perak, Kinta Valley (*Ridley*), 1 ♂, 1 ♀ ; Singapore (*Ridley*), 1 ♀ ; Borneo, Sadong (*Shelford*), 1 ♂ ; Br. N. Guinea, Ekeikei (*Pratt*), 5 ♂, 4 ♀, Mt. Kebea (*Pratt*), 1 ♂. *Exp.* 36–44 millim.

Sect. III. Palpi of male with the base of 2nd joint dilated and hollowed out on outer side into a ear-shaped vesicle of white membrane.

A. Hind wing with broad orange postmedial band from vein 6 to above inner margin ..... *auriculata.*
B. Hind wing with slight curved orange postmedial bar between veins 5 and 2 ..... *malachitis.*

6739. **Blenina auriculata**, n. sp.

♂. Head and thorax bright sap-green mixed with black-brown on dorsum of thorax ; palpi white at base ; pectus and legs creamy white, the fore and mid tibiæ with some green and fuscous, the tarsi banded with brown ; abdomen orange-brown, the crests and extremity darker, the ventral surface yellow. Fore wing bright

Fig. 153.—*Blenina auriculata*, ♂. ½.

sap-green irrorated with black and some white ; an oblique blackish striga from base of costa ; subbasal line indistinct, bent inwards and waved from subcostal nervure to submedian fold in which there is a slight black streak ; antemedial line very indistinct, angled outwards below costa, then sinuous ; a black discoidal striga with

t riga above it from costa; postmedial line indistinct, with blackish mark at costa, minutely dentate, somewhat oblique to vein 4, then incurved, the costal edge beyond it white with a black point on it; subterminal line black, minutely crenulate, angled outwards below vein 7, and excurved at middle, some black on terminal area at apex, middle, and above tornus; a terminal series of minute green lunules; cilia brownish with series of small black spots at base and some white at tips at middle. Hind wing orange-yellow, the basal, costal and inner areas suffused with brown; a broad black terminal band leaving some orange on termen except at apex, its inner edge slightly waved; cilia orange, blackish at apex and with some white at middle. Underside of fore wing yellow with large diffused discoidal brown patch connected by a bar with costa, and broad terminal band; hind wing yellow with medial blackish bar from costa, slight spot at lower angle of cell, and terminal band.

Hab. Dutch N. Guinea, Fak-fak (*Pratt*), 1 ♂; Br. N. Guinea, Ekeikei (*Pratt*), 1 ♂ type. *Exp.* 36 millim.

6740. Blenina malachitis. (Plate CLXXXV. fig. 3.)

Blenina malachitis, Hmpsn. A. M. N. H. (7) xvi. p. 546 (1905).

Head and thorax bright sap-green, the latter with slight dark irroration; palpi above and antennæ black, pectus and legs yellowish, fore tibiæ green in front, the tarsi brown ringed with white; abdomen reddish brown, the terminal half in male with lateral fringes of hair curved over dorsum, the ventral surface whitish, blackish at extremity. Fore wing whitish almost entirely suffused with emerald-green, with more or less blackish suffusion on medial and postmedial areas, and sometimes some rufous suffusion beyond the cell; an obliquely curved, slightly waved black subbasal line from costa to submedian fold, with an indistinct dark bar beyond it from cell to submedian fold; a more or less distinct double antemedial line, angled outwards below costa and cell and at vein 1; a slight black discoidal bar with whitish point before it; postmedial line slightly bent outwards below costa, minutely dentate to vein 3, then strongly incurved and oblique to inner margin, with another less distinct line beyond it from costa to vein 3; subterminal line black, green at middle, very minutely dentate, angled outwards at vein 7, excurved at middle, bent inwards at vein 2, and oblique to near tornus; a blackish patch at apex and below vein 6; the tips of the veins with slight black streaks with whitish striæ between them; cilia whitish tinged with green and with brown towards apex, with series of black points on them. Hind wing black-brown, darker towards termen; a more or less developed curved yellowish postmedial bar between veins 5 and 2, emitting a streak towards base below the cell; cilia yellow, blackish at apex and with some dark points at middle. Underside of fore wing dull yellowish with blackish medial band, diffused except at

costa, terminal area blackish with diffused inner edge; hind wing yellowish white with traces of curved medial line and broad terminal black band from apex to submedian fold.

Ab. 1. Fore wing with the area beyond the medial line suffused with black and irrorated with whitish from costa to vein 3.

Hab. Singapore (*Ridley*, *Frühstorfer*, *Wood-Jones*), 2 ♂, 2 ♀ type. *Exp.* 40 millim.

Sect. IV. Palpi of male abnormal.

A. (*Amrella.*) Fore wing with the termen excised below apex and excurved at middle, then oblique and crenulate to tornus; hind wing with the termen excurved at veins 3 and 2.
  a. Hind wing with more or less distinct pale postmedial band.
    a^1. Hind wing with the basal half ochreous slightly tinged with brown.
      a^2. Fore wing white suffused with pale green ..... *megei*.
      b^2. Fore wing bright green mixed with brownish white ..... *angulipennis*.
    b^1. Hind wing with the basal half strongly suffused with fuscous brown.
      a^2. Fore wing with more or less developed patches of whitish ..... *senex*.
      b^2. Fore wing uniform fuscous brown tinged with green ..... *fumosa*.
  b. Hind wing fuscous without trace of pale postmedial band ..... *melanyctea*.

*6741. Blenina megei.

Dandaca megei, Oberth. Ét. Ent. vi. p. 20, pl. ix. f. 6 (1881).

Head and thorax pale green mixed with white; tegulæ with blackish medial line; pectus, legs, and abdomen brownish ochreous. Fore wing pale green mixed with white and slightly irrorated with fuscous; subbasal line slight, blackish, excurved below costa and ending at vein 1, where there is a small black spot beyond it with black streak from it to near subterminal line; a slight obliquely curved blackish antemedial line; postmedial line slight, oblique and sinuous to vein 4, then bent inwards and bidentate and again bent outwards to inner margin, some black points beyond it on costa; subterminal line white slightly defined on inner side by blackish, more strongly on inner area, angled outwards below vein 7, excurved at middle and incurved in submedian interspace where there is a short black streak before it. Hind wing brownish ochreous with terminal black band, broad at costa, narrowing to a point at tornus; cilia ochreous. Underside of both wings brownish ochreous with black medial line diffused on disk of fore wing, sinuous on hind wing, and broad terminal band narrowing to tornus.

Hab. C. China, Kony-Tchéou. *Exp.* 40 millim. This species is unknown to me.

6742. Blenina angulipennis.

Amrella angulipennis, Moore, Lep. Atk. p. 158, pl. v. f. 6 (1882); Hmpsn. Moths Ind. ii. p. 379.

♂. Head and thorax bright green mixed with pale brown; palpi brownish white at base; pectus and legs brownish white, the fore and mid tibiæ with some green in front, the tarsi with fuscous bands; abdomen ochreous brown with the crests green, the ventral surface brownish white. Fore wing bright green irrorated with brownish white; traces of a waved subbasal line with some brownish white beyond it at middle; traces of an oblique sinuous brownish antemedial line; a blackish spot in middle of cell; postmedial line very indistinct and bent outwards below costa, then slight, blackish with small brownish spots on its outer edge, dentate, excurved to vein 4, then incurved and again bent outwards above

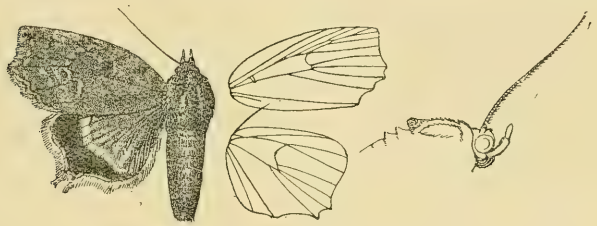


Fig. 154.—*Blenina angulipennis*, ♂. ½.

inner margin, some black points beyond it on costa; subterminal line double, the inner line with tufts of pale brownish scales, the outer faint, brownish, slightly excurved below vein 7 and at middle; a terminal series of slight white marks; cilia pale brownish with a dark line through them. Hind wing pale brownish ochreous, tinged with fuscous to the faint sinuous postmedial line; a broad black subterminal band. Underside brownish ochreous with black medial band from costa to submedian fold, expanding on disk of fore wing and sinuous on hind wing, a broad black terminal band expanding below costa of fore wing and narrowing to tornus of both wings.

Hab. Sikhim; Assam, Khásis, 1 ♂. *Exp.* 50 millim.

6743. Blenina senex.

Dandaca senex, Butl. A. M. N. H. (5) i. p. 82 (1878); id. Ill. Het. B.M. iii. p. 13, pl. 44. f. 6.

Head and thorax grey-green mixed with white and purplish fuscous; tegulæ with slight dark medial line; palpi with black spots on the joints; pectus and legs white and brown, the fore and mid tibiæ with some green in front; abdomen whitish suffused with brown. Fore wing grey-green mixed with white and more or less

suffused with purple-grey ; subbasal line slight, black, excurved below costa, then sinuous to vein 1, sometimes with a small black spot beyond it above vein 1 ; antemedial line indistinct, oblique, sinuous ; two discoidal points of raised dark scales ; postmedial line slight, blackish defined on outer side by whitish, oblique from below costa to vein 6, then dentate, angled outwards at veins 4, 3, then bent inwards, and again oblique from submedian fold to inner margin, some minute black streaks beyond it on costa ; subterminal line formed of white scales defined on inner side by blackish, distinct below vein 3, minutely waved, angled outwards below vein 7 and excurved at middle, incurved in submedian interspace, when there is a short black streak before it ; a fine waved terminal line ; cilia white and brown. Hind wing ochreous white suffused with fuscous brown, the terminal area fuscous black ; an oblique sinuous dark line defined on outer side by ochreous white from costa beyond middle to above tornus ; some black points at extremities of median nervules ; cilia ochreous white with dark line through them from apex to vein 2. Underside of both wings ochreous white irrorated with brown, a sinuous medial line diffused on disk of fore wing, and blackish terminal band.

Ab. 1. Fore wing with black streak above vein 1 from base to subterminal line.

Hab. Japan, Yokohama (*Jonas*, *Pryer*), 5 ♂, 4 ♀ type, Tokio (*Maries*), 1 ♀ ; Corea, Gensan (*Ito*), 1 ♂ ; C. China, Shanghai (*Pryer*), 1 ♂. *Exp.* 42–48 millim.

6744. Blenina fumosa. (Plate CLXXXV. fig. 4.)

Blenina fumosa, Swinh. A. M. N. H. (7) xv. p. 157 (1903).

♀. Head and thorax dark sap-green mixed with fuscous brown ; pectus and legs brownish white, the fore tibiæ with some green in front, the tarsi ringed with fuscous ; abdomen fuscous brown. Fore wing dark sap-green mixed with purplish grey-brown, the medial area with oblique blackish shade ; a slight blackish subbasal line, excurved below costa and ending at vein 1 ; an oblique sinuous medial line ; two slight discoidal points of raised scales ; postmedial line faintly defined on outer side by pale brown, bent outwards below costa, then waved, oblique to vein 4, then bent inwards ; subterminal line blackish defined on outer side by whitish scales, minutely waved, excurved below vein 7 and at middle, bent inwards at vein 2, with slight black streaks before and beyond it in submedian fold ; a slight waved dark terminal line. Hind wing fuscous brown, the terminal area black, an oblique sinuous ochreous brown line from costa beyond middle to above tornus ; some black points at extremities of median nervules ; cilia brownish ochreous with a blackish line through them. Underside of both wings with the basal half ochreous suffused with brown, the terminal half black-brown, a brownish ochreous postmedial band, obliquely curved on fore wing, sinuous on hind wing.

Hab. Assam, Khásis, 1 ♀ type. *Exp.* 46 millim.

6745. Blenina metanyctea. (Plate CLXXXV. fig. 5.)

Blenina metanyctea, Hmpsn. A. M. N. H. (7) xvi. p. 543 (1905).

♂. Head and thorax white and green mixed with some fuscous; tegulæ black at outer edge and with black line near tips; pectus and legs yellowish tinged with brown; fore tibiæ and tarsi banded with black; abdomen yellow dorsally suffused with brown, the crests at base whitish tipped with black. Fore wing white largely suffused with bright green; a diffused irregular olive-green and reddish brown band from middle of costa to tornus; a black line close to base angled in cell and with a black striga beyond it above inner margin; a waved, rather inwardly oblique antemedial line from costa to above inner margin; an indistinct waved medial line; reniform white irrorated with green, its lower part defined on inner side by a curved black line and slightly by black on outer side, its upper part very indistinctly and irregularly defined by green, with a black striga from costa above it; postmedial line indistinct, minutely dentate, strongly incurved in submedian interspace; a minutely dentate subterminal line bent inwards at vein 2, then oblique to near tornus; a dark patch at apex and a terminal series of white spots except towards tornus interrupted by the black terminations of the veins; cilia yellowish with a series of brown spots and points at tips to vein 3. Hind wing dark brown, the inner margin yellowish; cilia yellowish with series of brown spots to vein 2; the underside yellow, the inner area tinged with brown, an irregular band from costa to lower angle of cell and a broad blackish band just before termen from costa to submedian fold.

Ab. 1. Fore wing with the diffused green and brown band from middle of costa to tornus but with some black suffusion on middle of costa, and oblique black marks between postmedial line at vein 4 and tornus.

Hab. Dutch New Guinea, Kapaur (*Doherty*), 1 ♂ type, Fak-fak (*Pratt*), 1 ♂. *Exp.* 42 millim.

B. (*Blenina.*) Fore wing with the termen evenly curved; hind wing with the termen slightly excised below vein 2.
  a. Antennæ of male with long fasciculate cilia.
    a^1. Hind wing with indistinct postmedial line with pale band beyond it.
      a^2. Hind wing with the basal area ochreous suffused with brown ..... *quinaria.*
      b^2. Hind wing with the basal area whitish suffused with brown ..... *obliquinaria.*
    b^1. Hind wing without postmedial line.
      a^2. Hind wing almost uniform fuscous brown.
        a^3. Fore wing with the basal half green, the terminal half brown ..... *chloromelana.*
        b^3. Fore wing with the ground-colour whitish.
          a^4. Fore wing largely suffused with green and with irregular black markings on medial and terminal areas ..... *smaragdina.*

b^4. Fore wing without irregular black markings on medial and terminal areas.
a^5. Fore wing mostly suffused with black-brown.
a^6. Fore wing with the white band on outer edge of postmedial line obsolete below vein 4 ..... *nigrans.*
b^6. Fore wing with the white band on outer edge of postmedial line entire..... *varians.*
b^5. Fore wing not suffused with black-brown.
a^6. Fore wing with the antemedial line not oblique and approximated to the post-medial line at inner margin.
a^7. Fore wing with distinct white band beyond the postmedial line ..... *solomonis.*
b^7. Fore wing without distinct white band beyond the postmedial line.
a^8. Fore wing strongly irrorated with brown and slightly with green ... *miota.*
b^8. Fore wing strongly irrorated with green and without any brown ..... *lichenopa.*
b^6. Fore wing with the antemedial line very oblique and approximated to the post-medial line at inner margin ..... *diagona.*
b^2. Hind wing semihyaline white, the terminal area suffused with fuscous brown ..... *squamifera.*

6746. Blenina quinaria.

Blenina quinaria, Moore, Lep. Atk. p. 158, pl. v. f. 5 (1882); Hmpsn. Moths Ind. ii. p. 379.

Head and base of tegulæ white mixed with green, the tips of tegulæ and thorax white mixed with brown, the metathoracic crest with some green; palpi blackish above; frons with lateral black bars; antennæ blackish; pectus and legs white, the tibiæ with

Fig. 155.—*Blenina quinaria*, ♂. ½.

some green and brown scales, the tarsi ringed with black; abdomen ochreous brown, the crests with some green and blackish scales, the ventral surface white, tinged with ochreous except at base. Fore wing white mostly suffused with rufous and blackish scales, leaving a quadrate patch on costal half of postmedial area and the terminal area whiter, the basal area except inner margin, the costal area to medial line, and a band beyond medial line with sap-green suffusion, some green beyond apical part of subterminal line; subbasal line represented by black striæ from costa and cell; ante-

medial line hardly traceable, waved; medial line oblique, waved; a black discoidal bar with oblique fascia from it to subterminal line at submedian fold; postmedial line very indistinct, bent outwards below costa, then minutely dentate, oblique to vein 4, then incurved, some black points beyond it on costa; subterminal line black, crenulate, angled outwards below vein 7 and inwards at discal and submedian folds; a terminal series of black points; cilia white and brown with a slight waved dark line through them. Hind wing ochreous white tinged with brown, the terminal area fuscous, narrowing to tornus; an indistinct oblique diffused brown postmedial line; cilia ochreous white, brown at apex and with series of black points at base to vein 2. Underside of both wings ochreous white; fore wing with black-brown discoidal patch on an oblique medial line, and broad terminal band narrowing to tornus; hind wing with oblique black-brown line from middle of costa to above tornus, and terminal band narrowing below vein 2.

Ab. 1. Fore wing with less green beyond the medial line, the postmedial whitish patch not quadrate, extending to the junction of the oblique fascia and subterminal line.

Ab. 2. Fore wing much whiter with slight brown irroration but without any dark suffusion.

Ab. 3. Fore wing with black patch on middle of inner margin.

Hab. W. China, Omei-shán, 1 ♂; Sikhim (*Dudgeon*, *Pilcher*, *Möller*), 17 ♂, 9 ♀; Assam, Khásis, 1 ♂. *Exp.* 34–44 millim.

Cocoon: tough, formed of bright yellow silk with an angular anterior projection above.

6747. **Blenina obliquinaria**, n. sp. (Plate CLXXXV. fig. 6.)

♂. Head and thorax white mixed with olive-green, the tegulæ with black band near tips, the patagia with three slight black bands; palpi with black spots on 1st and 3rd joints the 2nd joint black above; tarsi banded with black; abdomen fuscous brown, whitish at base, the crests white with some brown scales, the ventral surface whitish at base, blackish at extremity. Fore wing white irrorated with green and rufous scales, the terminal area suffused with violaceous blackish and olive, the costa with series of black points; subbasal line indistinct, sinuous, from costa to vein 1; antemedial line almost medial, indistinct, oblique, waved; a slight black discoidal lunule with oblique black streak from below it to subterminal line at submedian fold; postmedial line black and bent outwards below costa, then indistinct, waved, slightly incurved at discal fold, incurved below vein 4 and angled outwards at vein 1, an indistinct, oblique, minutely waved line beyond it; subterminal line black defined on outer side by whitish and with some faint blackish spots before it at middle, angled inwards at discal fold and vein 2; a fine black terminal line; cilia white mixed with rufous and fuscous and with crenulate black line at middle. Hind wing whitish tinged with brown, the terminal area broadly fuscous black, narrowing to tornus, leaving some whitish

and black points on medial part of termen; cilia white tinged with brown, fuscous towards apex and tornus. Underside of both wings whitish, a medial black band diffused on disk of fore wing, the terminal area broadly black.

Hab. Br. N. Guinea, Mt. Kebea (*Pratt*), 2 ♂ type. *Exp.* 34 millim.

6748. Blenina chloromelana. (Plate CLXXXV. fig. 7.)

Acontia chloromelana, Mab. Ann. Soc. Ent. Fr. (6) x. p. 39 (1890).
Eliocræa chloroptila, Holl. Psyche, vii. p. 68 (1894).

Head and thorax reddish brown mixed with greenish grey; palpi with the 2nd joint black above; pectus and legs whitish tinged with rufous; abdomen greenish grey suffused with rufous, the ventral area whitish. Fore wing red-brown suffused with blackish, the basal half pale green irrorated with white leaving the costal edge and base of inner margin rufous, sometimes with blackish patch on inner margin before the medial line; a dentate subbasal line from costa to submedian fold; an oblique sinuous medial line; two obliquely placed black discoidal points with paler patch beyond them; postmedial line irregularly dentate, oblique from costa to vein 4, angled inwards on vein 2, then excurved to inner margin, some white and green suffusion beyond it on costal area; a dark subterminal line, strongly angled outwards at vein 7, excurved and minutely dentate at middle, bent inwards at vein 2, then oblique to near tornus, some white beyond it between vein 4 and submedian fold; cilia brown intersected with orange on apical half, whitish towards tornus. Hind wing fuscous brown with a reddish tinge; cilia yellow intersected with brown from below apex to vein 2. Underside of fore wing fuscous brown, the inner area whitish, some grey on costa from middle to near apex, traces of a line from costa to lower angle of cell; hind wing whitish suffused with reddish brown leaving the costal area paler, a diffused medial line from costa to submedian fold, a blackish terminal band from apex to vein 2.

Hab. Sierra Leone (*Bartlett*), 1 ♀; S. Nigeria, Old Calabar (*Crompton*), 1 ♂, 1 ♀, Ilesha (*Humphrey*), 1 ♀; Gaboon, Ogové R., type † *chloroptila* in Coll. Holland. *Exp.* 42 millim. Type † in Coll. Mabille.

*6749. Blenina smaragdina. (Plate CLXXXV. fig. 8.)

Blenina smaragdina, Beth.-Baker, Nov. Zool. xiii. p. 223 (1906).

♂. Head and thorax white mixed with yellow-green; palpi with the basal half black, the 3rd joint with black bands at base and tips; frons with lateral black spots; antennæ black; tegulæ black at tips, the patagia black on outer edge and at tips, the metathoracic crests with some black; pectus and legs white, the tibiæ and tarsi with black bands; abdomen white suffused with brown, the crests black. Fore wing yellow-green, the terminal area

mostly white, some white at base of inner margin ; a small quadrate subbasal black spot on costa defined by white, a point in cell and wedge-shaped black patch below the cell with white patch beyond it before the antemedial line, which is black defined by white on inner side, oblique, angled inwards below costa and bent outwards above inner margin, a black fascia from it to postmedial line above vein 1, defined by white above; a trilobate black discoidal spot defined by white ; postmedial line black defined by white on outer side, forming a wedge-shaped spot on costa, bent outwards below costa, then rather maculate and incurved at discal fold, incurved and stronger below vein 2 and outwardly oblique to inner margin, a black point beyond it on costa; subterminal line represented by a black spot on costa, then some points, a lunule at vein 5 and irregular spot at tornus, with a green band beyond it interrupted below middle ; a quadrate terminal black patch at apex, semicircular patch at discal fold and spot above vein 2 ; cilia chequered black green and white. Hind wing whitish suffused with fuscous brown; cilia slightly intersected with white ; the underside whitish, the costal half and terminal area suffused with brown.

Hab. Br. New Guinea, Babooni (*Pratt*), type † in Coll. Bethune-Baker. *Exp.* 40 millim.

*6750. **Blenina nigrans.** (Plate CLXXXV. fig. 9.)

Blenina nigrans, Beth.-Baker, Nov. Zool. xiii. p. 222 (1906).

♂. Head and thorax black-brown with some white scales mixed, the frons much whiter with a blackish bar above ; palpi white with black patches at base of joints, the 2nd joint black behind; pectus and legs white mixed with some brown, the tarsi banded with black ; abdomen grey suffused with brown, the crests blackish, the ventral surface whitish. Fore wing black-brown, irrorated with white, a diffused whitish patch on costal half of postmedial area, the terminal area whitish ; subbasal line represented by black spots below costa and cell ; an ill-defined diffused slightly sinuous antemedial line ; medial line minutely waved, double below the cell and slightly angled inwards at vein 1; two black discoidal points ; postmedial line defined by white on outer side from costa to vein 4, double at costa, sinuous, oblique to vein 4, then incurved, a black point beyond it on costa ; subterminal line whitish defined on inner side by black, minutely waved, angled outwards at vein 7, excurved at middle and bent outwards to tornus ; a diffused black apical spot ; a terminal series of white spots separated by minute black streaks on the veins ; cilia white and brown with a series of blackish spots at base. Hind wing deep glossy fuscous, cilia chequered white and fuscous at middle ; the underside whitish suffused and irrorated with brown, the terminal half fuscous, an oblique fuscous postmedial line.

Hab. Br. N. Guinea, Dinawa (*Pratt*), type † in Coll. Bethune-Baker. *Exp.* 36 millim.

6751. Blenina varians. (Plate CLXXXV. fig. 10.)

Blenina varians, Beth.-Baker, Nov. Zool. xiii. p. 223 (1906).

♂. Head and thorax white mixed with sap-green, the patagia at middle and vertex of thorax with some rufous, the tegulæ with dark band near tips, the prothorax with black bar, or the thorax black mixed with white; palpi with black spots on the joints; pectus white; tarsi banded with black; abdomen fuscous, the crests green and black, the ventral surface white tinged with brown. Fore wing white largely mixed with sap-green and black-brown, the basal half of medial area mostly rufous; a black spot at base of costa; subbasal line black, waved, from costa to submedian fold in which there is a short black streak beyond it; antemedial line almost medial, black defined on inner side by whitish, oblique, waved, angled inwards at vein 1; postmedial line black with a white band on its outer edge, slightly bent outwards below costa, then somewhat dentate, oblique to vein 4, then incurved, some black points beyond it on costa; subterminal line white defined on inner side by a maculate black band, angled outwards below vein 7, excurved at middle and bent outwards to tornus; a fine black terminal line; cilia chequered white and green. Hind wing fuscous black, the cilia with some white at middle; the underside with some whitish to beyond the indistinct diffused curved postmedial line.

♀. Fore wing with more white and less green and rufous, the postmedial line more strongly dentate.

Hab. Br. N. Guinea, Mt. Kebea (*Pratt*), 4 ♂, Ekeikei (*Pratt*), 1 ♀. *Exp.* 36 millim. Type † in Coll. Bethune-Baker.

6752. Blenina solomonis. (Plate CLXXXV. fig. 11.)

Blenina solomonis, Swinh. A. M. N. H. (7) xvi. p. 151 (1905).

♂. Head and thorax white mixed with olive-green and some blackish; tegulæ with blackish band near tips; patagia with blackish bars; palpi with black spots on the joints; tibiæ and tarsi banded with black; abdomen fuscous, white at base, the crests with some olive scales, the ventral surface brownish, white at base. Fore wing white irrorated with sap-green and brownish, especially on basal area, outer half of medial area, and terminal area; subbasal line represented by blackish striæ from costa and cell; antemedial line hardly traceable, oblique, sinuous; medial line blackish defined on inner side by white, oblique, waved; a black discoidal point; postmedial line blackish defined on outer side by white, slightly bent outwards below costa, then somewhat dentate, bent inwards below vein 3; subterminal line white defined on inner side by a maculate black line and with some black spots beyond it towards costa, excurved below vein 7 and at middle. Hind wing fuscous brown, the cilia with some white; the underside with the basal and inner areas greyish.

Hab. Br. N. Guinea, Ekeikei (*Pratt*), 2 ♂; Solomon Is., 1 ♂ type. *Exp.* 34-38 millim.

6753. Blenina miota. (Plate CLXXXV. fig. 12.)

Blenina miota, Hmpsn. A. M. N. H. (7) xvi. p. 547 (1905).

♂. Head and thorax pale green mixed with fuscous; pectus and legs whitish, the fore tarsi fuscous ringed with white; abdomen whitish suffused with fuscous. Fore wing pale green irrorated with fuscous, the area from middle of costa and beyond the cell suffused with fuscous down to vein 5; an indistinct subbasal black striga from costa; antemedial line represented by a black striga from costa and point below median nervure; an oblique fuscous striga from middle of costa, two black discoidal points; postmedial line double, bent outwards below costa, minutely dentate to vein 3, then the inner line obsolete, the outer line erect to inner margin; subterminal line formed of small fuscous spots, strongly excurved from vein 5 to 2, where it is bent inwards, then oblique to tornus; a series of minute fuscous spots just before termen on which there is a series of black striæ. Hind wing brown with a slight reddish tinge; cilia whitish; the underside whitish with traces of a curved postmedial line and a broad fuscous terminal band.

♀. Fore wing with blackish patch in submedian interspace before postmedial line.

Hab. Sierra Leone, Pt. Lokko (*Penny, Dudgeon*), 1 ♂, 1 ♀ type. *Exp.* ♂ 28, ♀ 32 millim.

6754. Blenina lichenopa.

Ceparcha lichenopa, Meyr. Trans. Ent. Soc. 1897, p. 374.
Blenina calena, Swinh. Cat. Het. Mus. Oxon. ii. p. 81, pl. ii. f. 10 (1900).
Bryophila exquisita, Lucas, Pr. Roy. Soc. Queensl. xv. p. 150 (1900).

♂. Head and thorax white mixed with green and a few black scales, the thorax with three slight black bands; palpi with black spots at base of joints; fore and mid tibiæ and the tarsi with black spots above; abdomen fuscous brown, the crests with white, green, and black scales, the ventral surface white tinged with brown. Fore wing white mixed with sap-green and some rufous scales; an oblique black striga from base of costa; subbasal line black, inwardly oblique, waved, from costa to vein 1; antemedial line oblique, sinuous; postmedial line blackish defined on outer side by white, the black almost obsolete, except at costa, slightly bent outwards below costa, excurved to vein 4, then incurved, some black points beyond it on costa; the postmedial area with more green except towards costa; subterminal line black, angled outwards below vein 7, excurved and minutely waved at middle; a blackish apical patch and minute streaks on the extremities of the veins; cilia chequered black and white. Hind wing black-brown, the cilia with some white at middle; the underside white irrorated with brown on costal half, the terminal area broadly fuscous, narrowing to a point at tornus.

♀. Head, thorax, and fore wing with pale yellow-green mixed; hind wing with the basal and inner areas whitish, the underside pure white except terminal area.

Hab. Queensland, Townsville (*Dodd*), 2 ♂, 1 ♀, Brisbane (*Turner*), 1 ♀. *Exp.* 30–36 millim.

6755. Blenina diagona, n. sp. (Plate CLXXXV. fig. 13.)

♀. Head and thorax white slightly mixed with fuscous, the tegulæ with black line near tips which are mostly blackish; palpi tinged with brown at base, the 2nd and 3rd joints black at sides; pectus and legs tinged with brown, the tibiæ with some black, the tarsi ringed with black; abdomen white, dorsally tinged with brown, the basal crest fiery red. Fore wing white tinged with greenish grey; the basal area greenish except at inner margin with some black scales on its outer edge; antemedial line black, very oblique to inner margin near postmedial line, slightly incurved above vein 1, a greenish patch beyond it from costa to discal fold with some blackish striæ on it and fuscous scales on its edges and small tufts of raised black scales in and at end of cell, some fuscous suffusion on inner area; two blackish postmedial points on costa with some greenish below them, the sinuous postmedial black line arising at vein 7 and nearly erect; a sinuous fuscous subterminal line, excurved below vein 5 and with blackish spot on it at submedian fold, some red-brown suffusion beyond it; a black terminal line; cilia brownish white with a series of blackish spots. Hind wing whitish suffused with brown, the cilia whiter except towards apex; the underside white tinged with ochreous brown, the costal area irrorated with red-brown.

Hab. S. Nigeria, Ilesha (*Humphrey*), 1 ♀ type. *Exp.* 36 millim.

6756. Blenina squamifera.

Lophoptera squamifera, Wilgrn. Wien. Ent. Mon. iv. p. 171 (1860).
Acronycta lichenosa, Feld. Reis. Nov. pl. 100. f. 9 (1874).
Diphthera autumnalis, Dist. A. M. N. H. (7) i. p. 222 (1898).

Head and thorax white mixed with green; tegulæ with black band near tips; thorax with three slight black bands; palpi with black spots at base of joints; tarsi banded with black; abdomen white tinged with brown and with slight pale segmental lines, the crests white mixed with green and black. Fore wing white mixed with blue-green and some black; an oblique black striga from base of costa; subbasal line black, waved, from costa to vein 1 above which there is a small black spot beyond it; antemedial line oblique, waved; a small tuft of black scales towards end of cell and two discoidal tufts; postmedial line black defined on outer side by white, bent outwards below costa, then dentate, slightly incurved at discal fold, incurved below vein 4, a deeper green line beyond it, some black points on costa and a short black streak in submedian fold; subterminal line black, angled outwards at vein 7, excurved at middle and dentate at veins 4, 3; a black patch at apex and spot below vein 7; cilia chequered black and white. Hind wing semihyaline white, the terminal area suffused with fuscous brown narrowing to a point at vein 1.

Ab. 1. Fore wing with the medial area suffused with fuscous.

Ab. 2. Fore wing with the medial and postmedial areas suffused with fuscous.

Ab. 3. Fore wing with fuscous mixed throughout and with black patch in submedian interspace beyond antemedial line.

Hab. Br. E. Africa, Eb Urru (*Betton*), 1 ♂; Bechuanaland, L. N'gami (*Lugard*), 1 ♂; Transvaal (*Cholmley*), 3 ♀, Waterberg (*Zutrzencka*), 1 ♀; Natal, Stanger (*Delvin*), 1 ♀, Estcourt (*Hutchinson*), 1 ♀, Durban (*Marley, Dalton*), 3 ♀; Cape Colony, Annshaw (*Miss F. Barrett*), 1 ♂. *Exp.* 30–32 milim.

b. Antennæ of male minutely ciliated.
  a^1. Hind wing orange.
    a^2. Hind wing with the basal area not suffused with brown.
      a^3. Hind wing without brown streaks on inner area.
        a^4. Hind wing with the costal area not suffused with brown.
          a^5. Fore wing short and broad, with a bright green band beyond the postmedial line ... *ephesioides.*
          b^5. Fore wing longer and narrower, without green band beyond the postmedial line.
            a^6. Tegulæ with green scales mixed on basal half.
              a^7. Fore wing without dark shade in discal fold from postmedial line to termen . *donans.*
              b^7. Fore wing with faint dark shade in discal fold from postmedial line to termen ..... *triphænopsis.*
            b^6. Tegulæ without green scales mixed ..... *metachrysa.*
        b^4. Hind wing with the costal area suffused with brown ..... *quadripuncta.*
      b^3. Hind wing with brown streaks on inner area... *amabilis.*
    b^2. Hind wing with the basal area suffused with brown ..... *accipiens.*
  b^1. Hind wing fulvous brown, the apical area suffused with black ..... *viridata.*
c. Hind wing whitish suffused with fuscous brown ..... *puloa.*

6757. Blenina ephesioides. (Plate CLXXXV. fig. 14.)

Blenina ephesioides, Pag. Jahrb. Nass. Ver. xxxix. p. 136, pl. x. f. 4 (1886).
Blenina brachyptera, Hmpsn. A. M. N. H. (7) xvi. p. 544 (1905).

♀. Head and tegulæ green; palpi banded with black; tegulæ edged with dark brown; thorax reddish brown; pectus yellowish; legs yellowish and brown, the fore and mid tibiæ with green patches; abdomen red-brown, the ventral surface yellowish except towards extremity. Fore wing short and broad, the apex and termen rounded; reddish brown; basal area suffused with green except towards inner margin; a double diffused black subbasal line from costa to vein 1 with some whitish on its outer edge; antemedial line black defined by green on inner side, oblique from costa to median nervure, then excurved and angled inwards on

vein 1, with slight green streaks on subcostal and median nervures from it to postmedial line; a slight discoidal dark point; postmedial line black defined by green on outer side, obliquely excurved and minutely waved from costa to vein 4, then incurved and with some white beyond the green near inner margin; a slight minutely waved green subterminal line, slightly excurved below vein 7, oblique and whitish from vein 2 to tornus; termen suffused with fuscous. Hind wing orange-yellow with terminal black-brown band, wide at costa, narrowing to vein 2 and expanding towards tornus, some yellowish points on termen between veins 5 and 3; cilia with a fine yellowish line at base except towards tornus. Underside of fore wing fuscous, yellow at base.

Hab. Aru Is.; New Guinea, Humboldt Bay (*Doherty*), 1 ♀ type *brachyptera*. *Exp.* 32 millim.

6758. Blenina donans.

Blenina donans, Wlk. xiii. 1215 (1857); Moore, Lep. Ceyl. iii. p. 129, pl. 160. f. 2; Hmpsn. Moths Ind. ii. p. 377.
Amphipyra laportei, Feld. Reis. Nov. pl. 140. f. 28 (1874).
Blenina grisea, Moore, P. Z. S. 1877, p. 607, pl. 60. f. 1.
Blenina pannosa, Moore, Lep. Atk. p. 157, pl. 5. f. 4 (1882).

Head and thorax white mixed with pale brown, the vertex of head, base of tegulæ and shoulders with some green; palpi with some black at base of 3rd joint in front; abdomen orange-yellow, the crests white mixed with brown, the anal tuft whitish, the ventral surface ochreous white. Fore wing white mixed with pale red-brown, the costal area slightly tinged

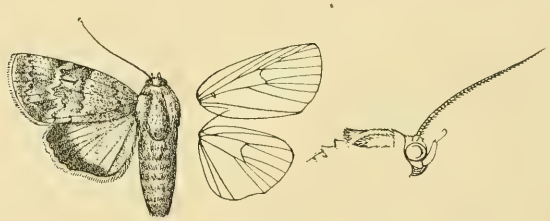


Fig. 156.—*Blenina donans*, ♂. ½.

with green; a curved dark striga at base of costal area; subbasal line indistinct, dark, excurved below costa, then waved and ending at submedian fold; a black point in middle of cell; medial line indistinct, blackish, sinuous; a slight black discoidal striga with streak beyond it in discal fold to postmedial line, which is bent outwards below costa, then minutely dentate, incurved at discal fold and below vein 4, angled outwards at vein 1; subterminal line brown defined on outer side by whitish, minutely dentate, angled outwards below vein 7 and excurved at middle; cilia with a series

of blackish points at base. Hind wing orange-yellow, the terminal area fuscous black, narrowing to a point at tornus; cilia brown towards apex, white at middle and yellow towards tornus. Underside of fore wing yellow, the inner area whitish, the terminal half fuscous.

Ab 1. *grisea*. Fore wing with quadrate black spot above vein 1 between medial and postmedial lines.

Ab. 2. Fore wing with oblique black streak from discoidal striga to termen at submedian fold.

Ab. 3. Similar but fore wing suffused with violaceous grey to the oblique streak except at costa.

Ab. 4. *pannosa*. Fore wing greener with some olive-brown before postmedial line on costal area, the terminal half of inner area olive-brown.

Hab. Bengal, Calcutta; Travancore, Pirmád (*Mrs. Imray*), 1 ♂, Trevandrum (*Fergusson*), 1 ♂; Ceylon (*Templeton, Lindesay*), 3 ♀ type, Kandy (*Green*), 1 ♀; Andamans, 1 ♂ type *grisea*; Java (*Horsfield*), 1 ♀; Amboina. *Exp.* 38–44 millim.

6759. **Blenina triphænopsis.** (Plate CLXXXV. fig. 15.)

Blenina triphænopsis, Hmpsn. A. M. N. H. (7) xvi. p. 545 (1905).

♂. Head and thorax greenish grey mixed with black, palpi with black points at base of third joint; tips of tegulæ and upper edge of patagia sometimes black; tarsi banded with fuscous; abdomen orange-yellow, tinged with brown at extremity, the crests at base greenish grey. Fore wing with the termen slightly oblique towards tornus; greenish white irrorated with brown and black, with more or less prominent black suffusion between medial and postmedial lines from costa to lower angle of cell and sometimes with diffused black fascia on inner margin from near base to subterminal line; traces of a waved line close to base from costa to submedian fold; an irregularly waved antemedial line bent outwards below costa, then oblique, ending at vein 1; medial line minutely waved, oblique from costa to median nervure; a black point sometimes present in cell; a slight white discoidal lunule with slight black streaks from its lower extremity to the postmedial line, which is minutely dentate, oblique from costa to vein 7, angled outwards at vein 4, then incurved, with traces of a minutely dentate line beyond it from costa to vein 4; a minutely dentate subterminal line, angled outwards at vein 6, excurved at middle and angled inwards at discal and submedian folds, where there are blackish patches beyond it; cilia white, brownish towards apex, with a fine waved line through them. Hind wing orange-yellow with black terminal band, broad at apex, narrowing to a point before tornus; cilia orange, tinged with fuscous at apex and at the angle at vein 2. Underside orange; fore wing with the terminal half blackish except on inner area, a black striga from costa above

end of cell with yellow spot beyond it; hind wing with black striga from costa above end of cell, and terminal band as above.

Hab. Singapore (*Ridley*, *Wood-Jones*), 3 ♂, 1 ♀ type; New Guinea (*Mathew*), 1 ♂. *Exp.* 42–45 millim.

6760. Blenina metachrysa. (Plate CLXXXV. fig. 16.)

Blenina metachrysa, Turner, P. Linn. Soc. N.S.W. xxvii. p. 89 (1902).

♂. Head and thorax white mixed with brown; tegulæ with slight dark medial line; pectus and legs ochreous white, the tarsi banded with fuscous: abdomen orange-yellow, the crests and extremity white and brown, the ventral surface yellowish white except at extremity. Fore wing white thickly irrorated with brown; subbasal line represented by a curved dark striga from costa; an elongate antemedial black patch on inner margin; antemedial line slight, oblique, sinuous; a small black discoidal spot; postmedial line slight, bent outwards below costa, angled inwards at discal fold, incurved and waved below vein 4, a wedge-shaped black patch from it to termen in submedian interspace and slight dark marks on costa; subterminal line dark, punctiform, angled slightly outwards below vein 7 and excurved at middle; cilia brown and white. Hind wing orange-yellow; a fuscous black terminal band, broad at costa and narrowing to a point at vein 1; cilia brown towards apex, white at middle and yellow towards tornus. Underside of fore wing yellow to middle of costa and tornus, the apical area brown with sinuous inner edge; hind wing with the costal area whitish with brown postmedial point on it.

♀. Head, thorax, abdominal crests, and fore wing with black mixed, the last without antemedial black patch on inner margin or patch beyond postmedial line, two slight black streaks from lower part of discoidal spot to beyond postmedial line.

Hab. Queensland, Rockhampton, 1 ♂, Townsville (*Dodd*), 1 ♀. *Exp.* 38 millim.

*6761. Blenina quadripuncta. (Plate CLXXXV. fig. 17.)

Blenina quadripuncta, Hmpsn. Ann. S. Afr. Mus. ii. p. 310 (1902).

♀. Head and thorax white tinged with green and irrorated with brown; mid femora and hind legs pale yellow; abdomen yellow, dorsally tinged with brown. Fore wing white, the basal and costal areas irrorated with green and black, the antemedial area with brown scales; a waved black subbasal line from costa to submedian fold; an interrupted waved antemedial line, strongly bent outwards to inner margin; a small black tuft in middle of cell and three on discocellulars; four blackish striæ on medial part of costa; the terminal area dark brown, with some brown irroration before it and traces of a waved white subterminal line; a terminal series of dark points; cilia with some white below middle. Hind wing yellow, the costal area tinged with brown; a brown terminal band

with sinuous inner edge; cilia yellow except at apex. Underside yellow; fore wing suffused with brown except basal, costal, and inner areas; hind wing with brown terminal band.

Hab. Mozambique, Delagoa Bay, type † ♀ in Coll. Druce. *Exp.* 38 millim.

6762. Blenina amabilis. (Plate CLXXXV. fig. 18.)

Labanda amabilis, Lower, Tr. R. Soc. S. Austr. xxvii. p. 47 (1903).

♀. Head and thorax dark brown mixed with green; palpi ochreous and brown; pectus and legs ochreous, the latter with some brown patches above; abdomen fulvous, the extremity brown, the ventral surface ochreous. Fore wing grass-green thickly irrorated with black; dentate subbasal and antemedial black lines with diffused black between them; a small black discoidal spot; an irregularly dentate postmedial line bent outwards between veins 6 and 4 and angled outwards at vein 1; a narrow waved subterminal band, angled inwards and interrupted at discal fold, bent inwards and interrupted at vein 3, then oblique to tornus; a fine terminal line slightly dentate at the veins; cilia black. Hind wing orange-fulvous; some diffused fuscous on basal half of inner area; a diffused fuscous terminal band widest towards apex; cilia blackish.

Hab. Queensland, Mackay, type † ♀ in Coll. Lower. *Exp.* 38 millim.

6763. Blenina accipiens.

Blenina accipiens, Wlk. xiii. 1215 (1857); Moore, Lep. Ceyl. iii. p. 129, pl. 160. f. 3; Hmpsn. Moths Ind. ii. p. 378.

Head and thorax grey-white mixed with brown, the palpi, vertex of head, base of tegulæ and shoulders with some green; pectus white; tarsi banded with black; abdomen yellow suffused with red-brown, the crests grey and brown, the ventral surface ochreous white. Fore wing white irrorated with brown, the costal area with some green; an oblique blackish striga from base of costa; subbasal line blackish, waved, from costa to submedian fold; a black point in middle of cell; an oblique sinuous medial line; a black discoidal striga; postmedial line indistinct, obliquely bent outwards below costa, slightly angled inwards at discal fold, incurved below vein 4 and excurved at vein 1; subterminal line black-brown, maculate, defined on outer side by white, angled outwards below vein 7 and inwards at discal fold, excurved at middle; a terminal series of slight black points; cilia brown and white with a dark line through them. Hind wing brown with rather diffused sinuous postmedial band from vein 7 to inner margin; some slight yellow lunules on medial part of termen; cilia yellow, brown towards apex. Underside yellow; fore wing with diffused brown band from middle of costa to below end of cell

where it is conjoined to the broad terminal brown area; hind wing with curved medial band from costa to below the cell and terminal band.

Ab. 1 Fore wing with the area between antemedial and medial lines suffused with white, also the inner area to postmedial line, an oblique black bar from the discoidal striga to vein 2.

Ab. 2. Fore wing with the area between the antemedial and medial lines suffused with white with a broad black shade beyond it.

Hab. "N. India," 1 ♀; Bombay (*Witham*), 1 ♀; Ceylon (*Templeton*, *Lindesay*, *Bury*), 1 ♂, 4 ♀, Trincomali (*Meade-Waldo*), 1 ♀; ? Australia (*Hunter*), 1 ♂, 3 ♀ type. *Exp.* 34–40 millim.

*6764. Blenina viridata. (Plate CLXXXV. fig. 19.)

Blenina viridata, Beth.-Baker, Nov. Zool. xiii. p. 223 (1906).

Head and thorax brown mixed with green and white; pectus and legs white, the fore and mid tibiæ with green and blackish markings, the tarsi banded with black; abdomen fulvous brown with the crests green and black, the ventral surface white at base. Fore wing with the basal area sap-green mixed with white, the rest of wing pale brownish irrorated with black and with diffused blackish and green bands on medial and postmedial areas; subbasal line represented by black striæ from costa and cell; antemedial line black, oblique, sinuous, double towards inner margin; a slight blackish discoidal striga; postmedial line black defined on outer side by pale brownish, waved, slightly excurved from below costa to vein 4; a lunulate black subterminal line defined on outer side by white marks, excurved below vein 7 and at middle and bent outwards to tornus; a terminal series of black points defined on inner side by a slight white line towards tornus, and a series of small blackish spots on the cilia. Hind wing fulvous brown, the apical area broadly suffused with black narrowing to a point at submedian fold; cilia whitish at tips.

Hab. Br. N. Guinea, Aroa R., Ekeikei (*Pratt*), type † ♂ in Coll. Bethune-Baker, Mt. Kebea. *Exp.* 34 millim.

6765. Blenina puloa. (Plate CLXXXV. fig. 20.)

Blenina puloa, Swinh. A. M. N. H. (7) viii. p. 130 (1901)

Head and thorax grass-green mixed with white; palpi white irrorated and ringed with fuscous; pectus and legs white, the tibiæ irrorated with fuscous, the tarsi banded with black; abdomen whitish suffused with brown. Fore wing white suffused and irrorated with grass-green; a series of small blackish spots on costa; an oblique sinuous blackish medial line with diffused fascia from it to postmedial line above vein 1; postmedial line indistinctly double, green, the inner line blackish towards costa and below

vein 2, bent outwards below costa, then slightly waved, incurved at discal fold and below vein 4 and bent outwards to inner margin; subterminal line whitish defined on inner side by green and with blackish spot at tornus, excurved below vein 7 and at middle; a terminal series of black points; cilia white with a series of brown spots. Hind wing whitish suffused with fuscous brown, the cilia with fine white line at base and whitish tips; the underside brownish white, the terminal area fuscous from apex to submedian fold.

Hab. Philippines, Luzon, 1 ♂ type; Pulo Laut (*Doherty*), 1 ♀; Talaut (*Doherty*), 1 ♂. *Exp.* 24–30 millim.

Genus **GRYPOSOBA**, nov.

Type, *G. catagrapha*.

Proboscis rather small; palpi obliquely upturned, the 2nd joint reaching about to vertex of head and rather broadly scaled in front and behind, the 3rd short; frons smooth, with tuft of hair above; eyes large, round; antennæ of male ciliated, the basal joint with tuft of hair in front; thorax clothed with scales and hair mixed, the prothorax with crest, the metathorax with very long crest projecting backwards; fore tibiæ fringed with hair on outer side, the mid tibiæ moderately fringed with hair, the hind tibiæ smoothly scaled; abdomen with dorsal crests on basal segments. Fore wing with the apex rounded, the termen excised above tornus where there is a scale-tooth, not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long narrow areole; 11 from cell. Hind wing with vein 3 from just before angle of cell; 4, 5 from angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

6766. **Gryposoba catagrapha.**

Cymatophoropsis catagrapha, Turner, Trans. Roy. Soc. S. Austr. xxvii. p. 7 (1903).

Thyatira dinawa, Beth.-Baker, Nov. Zool. xi. p. 381, pl. v. f. 43 (1904).

♂. Head and thorax dark brown; tegulæ and patagia edged by a few white scales; pectus and femora white; abdomen ochreous white, the dorsal crests dark brown. Fore wing red-brown with pale yellow patch at base emitting a streak on median nervure and

Fig. 157.—*Gryposoba catagrapha*, ♂. ½.

a forked streak below the cell; traces of an antemedial line oblique from costa to median nervure where it is acutely angled, then inwardly oblique; a point at lower angle of cell; postmedial line oblique and indistinct from costa to vein 6, then double, dentate on veins 6 and 5, then obliquely incurved and expanding into a triangular patch on inner margin; a large pale yellow patch on

costal area extending from just before postmedial line to apex; traces of a dentate subterminal line and a prominent striga above tornus; cilia intersected by fine yellow streaks and with a yellow patch above tornus. Hind wing white, the terminal area broadly fuscous from costa to vein 2; cilia pale yellow.

Hab. Dutch N. Guinea, Fak-fak (*Pratt*), 1 ♂; Br. N. Guinea, Dinawa (*Pratt*), type † ♂ *dinawa*, in Coll. Bethune-Baker; Queensland, Cairns, type † ♂ in Coll. Turner, Kuranda (*Dodd*), 3 ♂. *Exp.* 32 millim.

Genus **RISOBA**.

	Type.
Risoba, Moore, P. Z. S. 1881, p. 328	*repugnans.*
Pitrasa, Moore, Lep. Atk. p. 94 (1882)	*variegata.*
Lycoselene, Möschl. Abh. Senck. Ges. xv. p. 87 (1888)	*lunata.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about vertex of head and moderately scaled, the 3rd moderate, porrect; frons smooth; eyes large, round; antennæ as long as fore wing, in male with fascicles of long cilia to three-fourths length; thorax clothed with scales and hair mixed; the prothorax without crest, the metathorax with spreading crest; tibiæ fringed with rather long hair; abdomen long in male, with minute dorsal crests on medial segments, the anal tuft forked. Fore wing with the apex rounded, the termen evenly curved and slightly crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with vein 3 from just before angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with rufous apical patch.
  a. Fore wing green, the orbicular a small rufous spot ..... *sphærophora.*
  b. Fore wing grey, the orbicular a dark point ..... *repugnans.*
B. Fore wing without rufous apical patch.
  a. Fore wing yellow with grey patches defined by brown on terminal area above and below middle ..... *flavipennis.*
  b. Fore wing without grey patches defined by brown on terminal area.
    a^1. Fore wing olive-yellow ..... *vitellina.*
    b^1. Fore wing with the ground-colour olive-green.
      a^2. Fore wing with oblique dark streak from apex ..... *variegata.*
      b^2. Fore wing with lunulate dark spot on terminal area below apex ..... *glauca.*
    c^1. Fore wing with the ground-colour blue-green.
      a^2. Fore wing with the postmedial line double, black filled in with white ..... *jucunda.*
      b^2. Fore wing with the postmedial line single, black defined on inner side by white ..... *diphtheroides.*
    d^1. Fore wing with the ground-colour bright yellow-green. *chlora.*
    e^1. Fore wing white suffused in parts with yellow-green.
      a^2. Fore wing with the basal and apical areas suffused with bright yellow-green ..... *viridata.*
      b^2. Fore wing with the basal and sometimes the apical area tinged with pale yellow-green ..... *delicata.*
    f^1. Fore wing whitish or grey suffused with brown.
      a^2. Fore wing with white fascia on costal area ..... *pratti.*
      b^2. Fore wing without white fascia on costal area.
        a^3. Fore wing with diffused white fascia below costa . *lunata.*

b^3. Fore wing without white fascia below costa.
a^4. Fore wing with white fascia above median nervure ..... *diversipennis.*
b^4. Fore wing without white fascia above median nervure.
a^5. Fore wing with series of black striæ defined on inner side by white lunules just before termen.
a^6. Fore wing with the oblique brown patch from apex extending to postmedial line... *basalis.*
b^6. Fore wing with the dark patch from apex not extending beyond subterminal line.
a^7. Fore wing with slight white streak on middle of inner margin.
a^8. Fore wing with dentate black mark on terminal area between veins 7 and 6. *cebea.*
b^8. Fore wing with black streaks on veins 7, 6 on terminal area..... *olivens.*
b^7. Fore wing without white streak on middle of inner margin.
a^8. Fore wing olive-grey tinged in parts with rufous..... *literata.*
b^8. Fore wing whitish or grey suffused with brown.
a^9. Fore wing with the postmedial costal area tinged with green ..... *avola.*
b^9. Fore wing with the postmedial costal area not tinged with green.
a^{10}. Fore wing with the orbicular absent ..... *prominens.*
b^{10}. Fore wing with the orbicular a black point.
a^{11}. Fore wing with the postmedial and terminal areas evenly suffused with reddish brown... *grisea.*
b^{11}. Fore wing with the postmedial and terminal areas more variegated with brown and whitish. *obstructa.*
b^5. Fore wing with series of black points just before termen.
a^6. Fore wing with double antemedial line... *diplogramma.*
b^6. Fore wing without antemedial line ..... *sticticraspis.*

*6767. **Risoba sphærophora.** (Plate CLXXXV. fig. 21.)

Risoba sphærophora, Meyr. Trans. Ent. Soc. 1889, p. 472.
Thyatira ekeikei, Beth.-Baker, Nov. Zool. xi. p. 382, pl. iv. f. 31 (1904).

♀. Head and thorax ochreous white slightly tinged with rufous; tegulæ fuscous at base and tips; fore legs and mid tibiæ and tarsi in front suffused with fuscous; abdomen white, tinged with ochreous and irrorated with brown on terminal half, the 2nd and 3rd segments fuscous at sides. Fore wing very pale yellow-green irrorated with black, the base yellowish white tinged with rufous and edged by an obliquely curved black line; traces of an oblique minutely dentate black antemedial line from costa to median nervure; orbicular a small rufous spot; reniform irregularly rounded, ochreous white tinged with rufous and defined by black;

a semicircular white patch tinged with rufous and defined by black on middle of inner margin; a lunulate postmedial patch from costa to discal fold, white defined by black on inner side, pale rufous at middle and deep rufous defined by white on outer side, followed by a quadrate greenish ochreous apical patch, the black postmedial line arising from it, crenulate, oblique below vein 4, with quadrate rufous patch beyond it at tornus; a terminal series of black points from the apical to the tornal patch; cilia greenish mixed with rufous. Hind wing ochreous, the terminal area fuscous except at apex, leaving some dentate ochreous marks on termen from vein 2 to tornus; a fine waved brown terminal line slightly defined by whitish on inner side; cilia pale rufous slightly mixed with brown; the underside ochreous, the costal area irrorated with brown, a small blackish discoidal spot, a broad fuscous subterminal band leaving some ochreous on termen expanding into a rounded patch at apex and not quite reaching tornus.

Hab. Br. N. Guinea, Mt. Obree, Ekeikei (*Pratt*), type † ♀ *ekeikei* in Coll. Bethune-Baker. *Exp.* 42 millim.

6768. Risoba repugnans.

Thyatira repugnans, Wlk. ix. 9 (1856); Moore, Lep. Ceyl. iii. p. 1, pl. 144. f. 1; Hmpsn. Moths Ind. ii. p. 398.

♀. Head and thorax white mixed with some ochreous brown; antennæ brown; abdomen white, the 3rd and 4th segments with subdorsal fuscous brown patches, the terminal segments tinged with ochreous, the ventral surface white. Fore wing greenish grey thickly irrorated with red-brown; a white basal patch slightly tinged with rufous and defined by an obliquely curved dark line with some red-brown suffusion beyond it; a red-brown point in middle of cell; a round white discoidal spot defined by brown and with rufous suffusion in centre; postmedial line dark, incurved and defining the inner edge of the apical patch from just below costa to discal fold, then obsolescent, oblique and minutely dentate to vein 1, then defining the inner edge of a white and rufous spot on inner margin; a larger apical rufous patch with whitish inner edge extending to the postmedial line and to discal fold; subterminal line whitish, incurved from costa to discal fold, then excurved and waved, a rufous patch beyond it at tornus; a terminal series of small dark brown lunules slightly defined on inner side by whitish. Hind wing whitish, the inner area tinged with brown, the terminal area broadly brown; a terminal series of brown striæ slightly defined on inner side by whitish; cilia whitish; the underside whitish, the costal area irrorated with brown, a brown discoidal spot, a broad subterminal band of brown suffusion and terminal series of small lunules.

Hab. Punjab (*James*), 1 ♀ type; Bombay, Ratnagiri (*Jayaker*), 1 ♀; Madras, Nilgiris, 1 ♀, Coimbatore (*Walhouse*), 1 ♀; Ceylon (*Templeton*), 1 ♀, W. Haputale (*Mackwood*), 1 ♀; Philippines, Luzon, Mindoro, Cebu. *Exp.* 36–40 millim.

6769. Risoba flavipennis. (Plate CLXXXV. fig. 22.)

Risoba flavipennis, Hmpsn. Trans. Ent. Soc. 1895, p. 304; id. Moths Ind iv. p. 529.

♀. Head white, the palpi and frons thickly irrorated with brown, the antennæ brown; thorax bright yellow with a few dark scales, the upper edge of patagia white, the metathorax mostly white; pectus and legs white tinged with brown; abdomen white, the base of dorsum and ventral surface tinged with yellow. Fore wing orange-yellow irrorated with a few black scales; the costa whitish with the costal edge dark; the base whitish; a diffused whitish subbasal line bent inwards below the cell to the white at base; a point of raised blackish scales at middle of cell and two at the angles; a white medial line excurved from costa to vein 4 beyond the cell, then bent inwards to before origin of vein 2 and erect to inner margin; postmedial line white with slight black points on its inner edge, excurved from costa to submedian fold, then oblique; grey-white patches thickly irrorated with dark-brown and edged with dark-brown on termen between veins 7 and 4 and 2 and 1; a series of black points just before termen; cilia whitish with blackish tips. Hind wing yellowish white, the terminal area suffused with brown from just below apex to vein 1; a series of blackish points just before termen; the underside yellowish white, the costal area with slight dark irroration, a series of small black lunules just before termen from apex to vein 2.

Palpi with the 3rd joint rather long and upturned; fore wing with the areole short with vein 7 from beyond it.

Hab. Bhután (*Dudgeon*), 1 ♀ type. *Exp.* 40 millim.

6770. Risoba vitellina.

Pitrasa vitellina, Moore, Lep. Atk. p. 94, pl. 4. f. 3 (1882); Hmpsn. Moths Ind. ii. p. 399.

♀. Head and thorax white mixed with brown; pectus yellowish white; abdomen white tinged with brown. Fore wing olive-yellow, the costa white irrorated with brown; a whitish patch at base of inner margin edged above by a dark streak; a subbasal dark point in cell; an antemedial series of dark points on the costa and veins; the median nervure and veins just beyond angle of cell whitish with a slight dark streak at lower angle of cell; a dark discoidal point and two slight striæ from medial part of costa; an oblique postmedial series of blackish and white points on the veins; an oblique dark streak from apex, a subterminal mark above vein 6 and line between veins 5 and 2; the termen suffused with brown and grey with a series of black striæ defined on inner side by white just before termen; a fine black terminal line; cilia brown with fine white lines at base and near tips. Hind wing semihyaline white; a slight brown discoidal lunule; the terminal area suffused with brown from just below apex to vein 2; the underside with brown discoidal lunule, the costal and terminal areas irrorated with brown, a diffused brown subterminal band.

Hab. Sikhim (*Lidderdale*), 2 ♀. *Exp.* 42 millim.

6771. Risoba variegata.

Pitrasa variegata, Moore, Lep. Atk. p. 94, pl. 4. f. 2 (1882); Hmpsn. Moths Ind. ii. p. 399.

♂. Head and thorax dark-brown mixed with grey-white; pectus ochreous yellow; abdomen grey-white mixed with brown, the three segments before the anal segment rufous above and below, the ventral surface white at base. Fore wing olive-green, the costa brown mixed with white; the base of inner area whitish defined above by an oblique black streak with diffused brown streak beyond it above vein 1; reniform slightly defined by dark brown and with brown spot in centre; two slight brown striæ from medial part of costa; postmedial line dark brown, reduced to points towards costa, oblique, incurved beyond lower angle of cell and

Fig. 158.—*Risoba variegata*, ♂. ½.

again slightly excurved at vein 1; an oblique sinuous brown streak from apex to vein 6 followed by some brown suffusion on outer edge of the postmedial line to vein 2, and a slight subterminal series of white points on the veins; a series of black striæ just before termen defined on inner side by white and with some white irroration beyond them towards apex, a fine dark terminal line and white line at base of cilia, which are brown tinged with grey. Hind wing semihyaline white, the inner area tinged with brown, the terminal area brown; a small brown discoidal spot; the underside with blackish discoidal lunule, the costal area slightly irrorated with brown, a rather diffused brown subterminal band.

Hab. Sikhim (*Pilcher*), 1 ♂. *Exp.* 38 millim.

6772. Risoba glauca, n. sp. (Plate CLXXXV. fig. 23.)

♀. Head and thorax whitish mixed with pale olive-green and brown; pectus and legs ochreous; abdomen white tinged with greenish and brown; subdorsal series of slight blackish marks meeting on dorsum at base, the ventral surface ochreous suffused with brown towards extremity. Fore wing whitish tinged with pale olive-green, irrorated and in parts suffused with brown; an oblique white fascia from base of costa to inner margin at vein 1, crossed by the sinuous black subbasal line which is bent inwards

to base at vein 1; antemedial line blackish, oblique, dentate; orbicular represented by a small blackish spot; the reniform with its centre defined by blackish and its lower part filled in with brown, with slight pale annulus defined by a few dark scales; an indistinct sinuous medial line, oblique from costa to just below the cell; postmedial line defined on each side by whitish, with oblique dark striga from costa, strongly bent outwards and obsolescent below costa, then oblique and represented by a series of minute dentate blackish marks on the veins, the area beyond it suffused with dark brown between veins 6 and 1 and with minute black streaks on the costa; subterminal line white defined on inner side by black-brown, dentate, slightly angled outwards at vein 6 and excurved at middle; a series of blackish striæ defined on inner side by white just before termen with a black-brown spot before the striga above vein 6; cilia chequered brown and whitish. Hind wing ochreous white tinged with brown, the terminal area broadly suffused with brown; a terminal series of small dark spots defined by a slight waved whitish line; cilia chequered brown and whitish; the underside with dark discoidal spot and broad diffused subterminal band.

Hab. Borneo, 1 ♀ type. *Exp.* 40 millim.

6773. **Risoba jucunda.** (Plate CLXXXV. fig. 24.)

Diphthera jucunda, Wlk. Journ. Linn. Soc., Zool. vi. p. 178 (1862); Swinh. Cat. Mus. Oxon. ii. p. 50, pl. i. f. 4.

♀. Head and thorax white mixed with greenish blue; palpi with slight black marks on 1st and 2nd joints; frons and vertex of head with black bars; antennæ ringed with black; tegulæ edged with black, the patagia with oblique black bars at middle and tips, the metathorax with black mixed; pectus and legs ochreous white and brown, the fore coxæ with grey hair, the mid tibiæ suffused with black; abdomen white tinged with ochreous at base, dorsally suffused with brown and black except the anal segments and with slight black segmental lines, the ventral surface suffused with blackish. Fore wing greenish blue with white irroration and suffusion in parts; a white patch at base defined by black and with the sinuous black subbasal line just beyond it from costa to submedian fold; antemedial line black defined on inner side by white, dentate, angled outwards in submedian fold; a small black spot at middle of cell, connected by a slight streak with the antemedial line and touching the medial black line, which is sinuous from costa to lower edge of reniform, which is white with black spot in centre from the lower edge of which arises a convoluted black line defining the reniform; from the upper edge of reniform arises a black line angled outwards beyond upper angle of cell, then minutely dentate, incurved at discal fold and below vein 4 and joining the postmedial line at inner margin; postmedial line black defined on each side by white, strongly angled outwards below costa, dentate below vein 5 and incurved below vein 4, the costa beyond it with

alternating black and white streaks; subterminal line white defined on inner side by black, dentate, incurved below costa, angled outwards at vein 7 and excurved at middle, an oblique black mark beyond it from termen just below apex; a series of black striæ defined on inner side by white just before termen; cilia chequered black and white. Hind wing pale ochreous, the cell, costal area and terminal area broadly suffused with fuscous; slight sinuous medial and post-medial series of dark points on the veins and traces of a subterminal line with ochreous marks on its outer edge below vein 2 and at vein 1; a terminal series of small black spots defined by a slight waved white line; cilia chequered black and white; the underside with blackish discoidal spot, diffused medial line excurved beyond the cell, and some greenish blue on costa beyond middle.

Hab. Borneo, Sarawak (*Wallace*), type † in Mus. Oxon., Sandakan (*Pryer*), 1 ♀. *Exp.* 38 millim.

6774. **Risoba diphtheroides.** (Plate CLXXXV. fig. 25.)

Risoba diphtheroides, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 453 (1897).

♂. Head and thorax pale blue-green with a few brown scales; palpi mostly black towards extremity and with some white in front at base; frons with lateral black spots; antennæ blackish; pectus and legs ochreous mixed with fuscous, the fore tarsi black ringed with white; abdomen whitish, the 3rd to 6th segments suffused with brown, the anal segment pale blue-green, the ventral surface ochreous irrorated with black. Fore wing pale blue-green suffused in parts with white and pale brown; the basal area tinged with brown and irrorated with black, with a wedge-shaped silvery white mark below the cell; subbasal line slight, black, from costa to median nervure; antemedial line black, slightly waved towards costa and strongly excurved below the cell; medial area mostly pale brown from costa to submedian fold; orbicular with slight white annulus and brown point in centre; reniform defined by black and with black points in centre, elliptical; a black striga from middle of costa; postmedial line black, with oblique bar from costa to reniform, bent outwards below costa, then defined on inner side by white, waved, slightly incurved at discal fold and strongly below vein 4, the costa beyond it with white points with black streaks between them; subterminal line strong, black defined on inner side by white suffusion, angled inwards at discal fold, excurved and slightly waved at middle, incurved below vein 3 and again excurved at vein 1, some brown suffusion beyond it and an oblique black patch below apex; a terminal series of black striæ with white marks before them; cilia chequered black and white. Hind wing whitish almost entirely suffused with fuscous; a fine black terminal line; cilia with slight white spots; the underside brownish white, the terminal area broadly suffused with black, a small black discoidal lunule and postmedial bar from costa.

Hab. Assam, Khásis, 1 ♂ type. *Exp.* 30 millim.

6775. **Risoba chlora**, n. sp. (Plate CLXXXV. fig. 26.)

♀. Head and thorax yellow-green, the latter with a few black scales, the patagia with a black spot near outer edge; pectus and legs ochreous, the fore legs with the tibiæ green, the tarsi black ringed with white; abdomen green with slight fuscous subbasal streaks on basal segments and dorsal and subdorsal points on terminal segments, the ventral surface ochreous white suffused with black towards extremity. Fore wing yellow-green; a brown subbasal patch on costa; antemedial line indistinct, oblique, sinuous, with brown patch at costa and diffused fascia from it to medial line in submedian fold; medial line indistinct, blackish, oblique from costa to below the cell; reniform rather diffused, brown slightly defined by black; postmedial line indistinctly double, oblique, minutely dentate, the area between it and subterminal line purplish brown between veins 6 and 1; subterminal line white defined on inner side by dark-brown, irregularly waved; a series of black striæ defined on inner side by white just before termen, with a brown spot before them below vein 7; cilia grey and blackish. Hind wing pale ochreous, the terminal area broadly fuscous; a slight waved white line just before termen; cilia ochreous; the underside with the costal area irrorated with brown, a dark discoidal spot, broad diffused subterminal band and terminal series of lunules defined on inner side by a waved white line.

Hab. Singapore (*Ridley*), 1 ♀ type. *Exp.* 40 millim.

6776. **Risoba viridata.** (Plate CLXXXV. fig. 27.)

Risoba viridata, Beth.-Baker, Nov. Zool. xiii. p. 233 (1906).

♂. Head pale apple-green; palpi red-brown mixed with white, the 2nd joint with oblique dark streak above at middle; lower part of frons white; a small blackish spot between antennæ which are brown except at base; tegulæ red-brown mixed with grey, a black line at base followed by a green band; thorax red-brown with apple-green patches on patagia and mesothorax and some black marks on edges of former; pectus and legs whitish mixed with red-brown, the tibiæ with green patches, the tarsi brown ringed with white; abdomen white mixed with red-brown except on terminal segments which are suffused with pale green, the ventral surface white at base, dark brown towards extremity before which there is a green band. Fore wing white irrorated with brown and suffused with bright apple-green in parts, especially on basal area, from end of cell to apex and on inner area beyond postmedial line, a diffused oblique white band beyond the antemedial line; subbasal line represented by a black striga from costa bent inwards at lower extremity; some blackish marks before the dentate black antemedial line, which is angled outwards below cell; claviform and orbicular absent; reniform pale green slightly defined by blackish, oblique elliptical; traces of a waved medial line, brown on costal area, then

green and ending on vein 1 : postmedial line blackish, strongly bent outwards below costa, then oblique and minutely dentate, incurved in submedian interspace, some white points beyond it on costa; subterminal line brown, minutely dentate, incurved below costa, excurved at middle, then oblique; a series of black striæ just before termen, slightly defined by white on inner side. Hind wing white with broad fuscous brown terminal band; a fine white line just before termen from apex to submedian fold; cilia white mixed with some brown; the underside with the costal area tinged with brown, a black discoidal spot and broad black terminal band leaving a pale green lunulate line on termen.

Hab. Dutch N. Guinea, Fak-fak (*Pratt*), 2 ♂; Br. New Guinea, Dinawa (*Pratt*), type † ♂ in Coll. Bethune-Baker. *Exp.* 36–40 millim.

6777. **Risoba delicata.** (Plate CLXXXV. fig. 28.)

Risoba delicata, Beth.-Baker, Nov. Zool. xiii. p. 233 (1906).

♂. Head and thorax white mixed with some pale yellow-green and brown; palpi brown at sides; tarsi brown ringed with white; abdomen white mixed with brown, the basal and some of the medial segments with slight black segmental lines, the ventral surface suffused with brown towards extremity. Fore wing white irrorated with brown and suffused in parts with pale yellow-green; a subbasal black striga from costa; antemedial line slight, dark defined on inner side by white, minutely waved, angled outwards just below the cell; orbicular a small green spot with very ill-defined white annulus; reniform with green centre and white annulus partly defined by black, elliptical; an indistinct sinuous medial line, dark brown towards costa, then green; postmedial line slight, dark, bent outwards below costa, then minutely dentate and produced to black points on the veins, incurved below vein 4; subterminal line white defined on inner side by black-brown, strongly from below costa to discal fold and from vein 2 to inner margin, slightly at middle, dentate below veins 9 and 7, excurved and minutely dentate at middle, an oblique black-brown mark beyond it from apex; a series of black striæ defined on inner side by white lunules just before termen; cilia chequered white and black. Hind wing white, the veins tinged with brown, the terminal area brown; a series of slight white lunules just before termen; cilia white and blackish; the underside with black discoidal spot.

Ab. 1. Fore wing with oblique brown shade from costa near base to inner margin beyond the antemedial line.

Hab. Dutch N. Guinea, Fak-fak (*Pratt*), 2 ♂; Br. N. Guinea, Dinawa (*Pratt*), 5 ♂, Avola (*Pratt*), 1 ♂, Mt. Kebea (*Pratt*), 2 ♂. *Exp.* 34 millim. Type † in Coll. Bethune-Baker.

6778. **Risoba pratti.** (Plate CLXXXV. fig. 29.)

Risoba pratti, Beth.-Baker, Nov. Zool. xiii. p. 235 (1906).

♂. Head and thorax red-brown mixed with white, the tegulæ and patagia at base tinged with green; mid tibiæ dark-brown towards base, the tarsi brownish ringed with white; abdomen white mixed with brown, the dorsum suffused with rufous towards base, the crests on terminal segments blackish, the ventral surface rufous mixed with blackish. Fore wing violaceous grey irrorated and suffused with red-brown, the basal half of costa tinged with yellow-green, the costal edge brown; an oblique rufous patch from base of cell to inner margin, its outer edge white defined by an irregularly waved black line; antemedial line very indistinct, pale, oblique from costa to below cell where it is angled outwards with a black point at extremity of the tooth, then incurved to the basal patch; a black-brown point in middle of cell; reniform small, defined by black-brown and with some white on its outer edge, its upper extremity acute; some yellow-green at middle of inner margin; postmedial line strongly angled outwards below costa, then oblique and defined on each side by white, the line fine and double with the outer line greenish to vein 5, the costa beyond it with short dark streaks; the white beyond the postmedial line defined by dark brown on outer side from costa to discal fold, minutely dentate and defined on outer side by white towards costa; an oblique dark brown fascia from apex to postmedial line at discal fold traversed by fine white streaks on the veins, with its outer edge dentate at vein 7 and with white suffusion below it; a slight waved dark subterminal line from vein 5 to inner margin, strongly excurved in submedian interspace; a series of black-brown striæ defined on inner side by white and emitting short streaks to termen on costal half just before termen; cilia intersected with white towards apex. Hind wing white tinged with brown, the costal area from middle and the terminal area broadly brown; a dark discoidal spot; a slight waved whitish line just before termen; the underside with the costal area irrorated with brown.

Hab. Br. N. Guinea, Dinawa (*Pratt*), 6 ♂. *Exp.* 40 millim. Type † in Coll. Bethune-Baker.

6779. **Risoba lunata.** (Plate CLXXXV. fig. 30.)

Lycoselene lunata, Möschl. Abh. Senck. Ges. xv. p. 88, f. 19 (1888).

Head, thorax, and abdomen black-brown mixed with white; pectus whitish tinged with brown. Fore wing dark-brown with a slight olive tinge mixed with white; a diffused white fascia along subcostal nervure, the outer part of medial area suffused with white to vein 3, some white at middle of inner margin; an oblique white patch at base from costa to vein 1; antemedial line slight, black, oblique towards costa, angled outwards in and below cell and inwards on median nervure and vein 1; reniform defined by blackish and produced to points on inner and outer sides; veins 7,

6, 5 streaked with blackish to the postmedial line, which is black, strongly bent outwards below costa, then oblique, dentate; subterminal line black-brown defined on outer side by white, indistinct on inner half, minutely dentate below costa, incurved and strong between vein 8 and discal fold, then dentate, incurved below vein 3 and again excurved above inner margin; an oblique black fascia from apex to subtermiual line with some white suffusion below it and black streaks on veins 7, 6; a series of black striæ defined on inner side by slight white lunules just before termen; a fine black terminal line; cilia brown chequered with white on apical half and with fine white line at base. Hind wing white tinged with brown, the terminal area broadly fuscous brown; cilia white tinged with brown; the underside with the costal area suffused with brown, a small dark discoidal lunule.

Hab. S. Nigeria, Lagos, Olokemeji (*Dudgeon*), 1 ♂, 1 ♀, Ebute Meta (*Boag*), 2 ♂, 6 ♀, Old Calabar (*Sampson*), 1 ♂, Sapele (*Sampson*), 1 ♂, Oshogbo (*Sampson*), 1 ♀, Ilesha (*Humphrey*), 1 ♂. *Exp.* 32–36 millim.

6780. **Risoba diversipennis.** (Plate CLXXXV. fig. 31.)

Heliothis diversipennis, Wlk. xv. 1750 (1858); Hmpsn. Moths Ind. ii. p. 399.

Head and thorax white mixed with reddish brown and some black; palpi with the 1st joint black above; frons with lateral black bars; tegulæ with brown dorsal patch and brown tips; mid tibiæ streaked with black, the tarsi brown ringed with white; abdomen white tinged with brown, the ventral surface irrorated with brown. Fore wing violaceous grey suffused with red-brown and slightly irrorated with black; a white streak along median nervure, diffused above; a white patch from base of cell to inner margin before middle slightly irrorated with brown and defined on outer side by a slight black line; a brown point in middle of cell; reniform reddish brown slightly defined by blackish and with blackish point in centre, minute, elliptical; postmedial line strongly angled outwards below costa, then indistinctly double, oblique, reduced to points between veins 4 and 1, angled outwards and filled in with white above inner margin, some white points with minute black streaks between them beyond it on costa; subterminal line white slightly defined on inner side by brown, incurved below costa, angled outwards below vein, 7 and oblique below vein 4; an oblique brown and blackish shade from apex and black streaks on veins 7, 6 with white lunulate spots above them; a series of black striæ defined by a crenulate white line just before termen. Hind wing white slightly tinged with brown, the terminal area fuscous brown, broad at costa, narrowing to tornus, a brown discoidal spot and postmedial points on veins 5 to 2; cilia whitish tinged with brown; the underside with the costal area irrorated with brown.

Hab. Punjab (*James*), 1 ♂, 1 ♀ type; Burma, Moulmein (*Clerk*), 1 ♀; Straits Settlements, Perak, Goping (*Künstler*), 1 ♀, Singapore (*Ridley*), 6 ♂, 7 ♀; Borneo, Sarawak (*Wallace*), 2 ♂, 1 ♀. *Exp.* 32–36 millim.

6781. **Risoba basalis.** (Plate CLXXXV. fig. 32.)

Risoba basalis, Moore, Lep. Atk. p. 91 (1882); Hmpsn. Moths Ind. ii. p. 399.

Head and thorax whitish tinged with rufous and mixed with red-brown and some black scales; mid tibiæ streaked with blackish; abdomen whitish tinged with red-brown. Fore wing whitish suffused with red-brown and slightly irrorated with black scales, the medial costal area and the middle of terminal area whiter; a white patch from base of costa to inner margin before middle with slight black streak on it below the cell and some rufous suffusion on inner area, its outer edge defined by a black line; antemedial line blackish, oblique and minutely waved to submedian fold, then incurved to the basal patch; reniform defined by brown and with brown centre, round; an oblique dark shade from beyond upper angle of cell through the reniform to inner margin; postmedial line indistinctly double, angled inwards below costa, then outwards, oblique to vein 4, then inwardly oblique and dentate, filled in with white at inner margin; an oblique red-brown shade from apex to postmedial line, a black streak on vein 6 and streaks on veins 7 and 1 on terminal area; some alternating black and white striæ on postmedial part of costa; subterminal line whitish defined on inner side by slight dentate blackish marks at middle, incurved below costa and bent inwards at vein 2; a series of black striæ defined on inner side by slight white lunules just before termen. Hind wing white tinged with red-brown, the terminal area broadly fuscous brown, a brownish discoidal spot; cilia whitish tinged with red-brown; the underside with the costal area irrorated with brown.

Ab. 1. Fore wing with the costa and inner margins tinged with green.

Hab. Hongkong (*J. J. Walker*), 1 ♂; Assam, Khásis, 2 ♂, 2 ♀ type; Travancore, Pirmád (*Mrs. Imray*), 1 ♂; Ceylon, 1 ♂; Singapore (*Ridley*), 1 ♀. *Exp.* 34–38 millim.

6782. **Risoba cebea.** (Plate CLXXXVI. fig. 1.)

Risoba kebea, Beth.-Baker, Nov. Zool. xiii. p. 233 (1906).

♀. Head and thorax white mixed with some pale yellow-green, brown and black; mid tibiæ streaked with black, the tarsi brown ringed with white; abdomen white slightly tinged with brown, the anal tuft faintly tinged with green. Fore wing white suffused with brown, purplish fuscous and pale yellow-green; a white patch from base of costa to inner margin before middle, its outer edge sinuous, a slight dark mark on it below the cell and some greenish above inner margin; antemedial line slight, blackish, oblique and dentate to submedian fold, then bent inwards to the basal patch, a slight brownish spot at middle of cell; the reniform faintly defined, pointed above, some white suffusion beyond it; a slight dark striga

from middle of costa; postmedial line strongly bent outwards below costa, then indistinctly double, oblique and minutely dentate below vein 4, defined on outer side by white towards inner margin, some white points with blackish streaks between them beyond it on costa; subterminal line black-brown defined on outer side by white, minutely dentate below costa, bent inwards and strong between veins 8 and 5, its outer edge produced to a tooth below vein 6, bent inwards at vein 2, then oblique to inner margin; an oblique dentate black mark from termen just below apex with some white below it; a series of black striæ defined on inner side by white lunules just before termen; cilia with a waved blackish line at middle. Hind wing white, the veins and inner area faintly tinged with brown, the terminal area broadly fuscous brown with a slight waved white line just before termen; cilia white slightly mixed with brown; the underside with the costal area irrorated with brown, a black discoidal spot.

Hab. Br. N. Guinea, Owgarra (*Meek*), 1 ♀, Dinawa (*Pratt*), 1 ♀, Mt. Kebea (*Pratt*), type † in Coll. Bethune-Baker. *Exp.* 44 millim.

6783. **Risoba olivens.** (Plate CLXXXVI. fig. 2.)

Risoba olivens, Beth.-Baker, Nov. Zool. xiii. p. 234 (1906).

♂. Head red-brown; palpi with some grey at base and tips; lower part of frons whitish; tegulæ grey irrorated with red-brown, with red-brown line at base and slight black tips; thorax white mixed with red-brown and blackish; pectus white tinged with brown; legs red-brown, the tarsi ringed with white; abdomen red-brown mixed with greyish, with paired dorsal black bars on 1st two segments and black crest on 4th segment, the ventral surface with some white at base and on anal tuft. Fore wing red-brown tinged with olive; the basal area white to the very oblique minutely waved subbasal line from costa to inner margin with diffused red-brown patch on it on inner area, and followed by a white streak on inner margin extending to postmedial line; antemedial line very indistinct and oblique, minutely waved; claviform and orbicular absent; reniform small, round, with red-brown centre and whitish annulus defined by blackish; a slight dark striga from middle of costa; postmedial line dark brown slightly defined by whitish on outer side, acutely angled inwards below costa, then strongly bent outwards, then minutely dentate and incurved below vein 4; some white suffusion on costal area from end of cell to subterminal line with slight blackish streaks on costa; the subterminal line dark brown with black-brown lunule on it below costa met by a diffused oblique brown fascia from apex with white patch below it and blackish streaks on the veins, the line minutely dentate, angled outwards below vein 7 and at vein 4, then oblique; a series of black striæ just before termen defined by white lunules on inner side; cilia with some white at base on apical half and waved brown

medial line. Hind wing white tinged with brown, the veins brown, the terminal area broadly brown; cilia brown with pale line at base; the underside with the costal area suffused with brown and with some white marks towards apex, a dark discoidal lunule and oblique postmedial line from costa to vein 7.

Hab. Br. N. Guinea, Dinawa (*Pratt*), 3 ♂, Mt. Kebea (*Pratt*), 1 ♂, Aroa R. *Exp.* 36 millim. Type † ♂ in Coll. Bethune-Baker.

6784. **Risoba literata.** (Plate CLXXXVI. fig. 3.)

Risoba literata, Moore, P.Z.S. 1881, p. 329; Hmpsn. Moths Ind. ii. p. 399.

Heliothis albistriata, Pag. Jahrb. Nass. Ver. f. Nat. xli. p. 132 (1888); id. Zoologica, xii. hft. 29, p. 71, pl. i. f. 20.

♂. Head and thorax red-brown mixed with greyish; the tegulæ with dark brown patches, the patagia with white outer edge; pectus and legs yellowish white, the fore and mid tibiæ brown in front, the tarsi brown ringed with white; abdomen white with subdorsal brown patches on 2nd to 4th segments, the three following segments rufous, the anal segment white with V-shaped dorsal brown mark and lateral streaks, the ventral surface white. Fore wing olive-grey suffused and irrorated in parts with rufous; a white patch at base with very oblique outer edge and slight rufous marks on it below the cell and above inner margin; faint traces of an oblique dentate rufous antemedial line from costa to vein 1; a dark brown point in middle of cell and rufous discoidal spot with faint pale annulus; a narrow white postmedial band, strongly angled outwards and slight below costa, then oblique, straight, connected by a white fascia on inner margin with the basal patch, some oblique white striæ beyond it from costa; subterminal line whitish, defined on inner side by dark brown, reduced to small dentate marks at middle, excurved from below vein 7, a patch of red-brown suffusion beyond it below apex; a terminal series of minute dark lunules defined by a slight waved whitish line. Hind wing yellowish white with some red-brown suffusion on basal area, the terminal area broadly fuscous brown; a terminal series of slight dark spots defined by a whitish line; cilia yellowish white; the underside with the costal area irrorated with brown, a brown discoidal lunule.

Hab. Madras, Nilgiris, 1 ♂ type; Ceylon, Puttalam (*Pole*), 1 ♂; Amboina; New Britain. *Exp.* 36–38 millim.

6785. **Risoba avola.** (Plate CLXXXVI. fig. 4.)

Risoba avola, Beth.-Baker, Nov. Zool. xiii. p. 234 (1906).

♂. Head and thorax dark red-brown mixed with white; mid tibiæ black-brown except at extremity, the tarsi brown ringed with

white; abdomen white suffused with rufous and with fuscous subdorsal patches on 2nd to 5th segments, the ventral surface dark brown towards extremity. Fore wing violaceous grey suffused with red-brown and irrorated with dark brown, some yellow-green suffusion on costal area beyond middle and on terminal area above middle and tornus; an oblique white patch with its outer edge defined by a waved black line from base of costa to inner margin before middle, a green patch near its extremity above inner margin; antemedial line blackish, dentate and oblique from costa to submedian fold, then incurved to the basal patch; a slight dark medial line, oblique to below the cell and slightly waved towards costa; reniform greenish defined by dark brown and with dark point in centre, pointed above; postmedial line strongly angled outwards and defined above by white below costa, then oblique, minutely dentate and with white band on its inner side; a small dark spot on costa before the subterminal line, which is dark brown defined on outer side by white, minutely dentate below costa, excurved below vein 7, angled inwards at discal fold, excurved and minutely dentate at middle and incurved in submedian interspace; a black-brown patch at apex with its outer edge dentate at veins 8 and 7 with white suffusion below it and a dark streak on vein 6; a series of small black lunules defined on inner side by white just before termen; cilia white and brown with a series of small black lunules at middle. Hind wing white tinged with ochreous, the terminal area fuscous, narrowing to a point at tornus and with its inner edge emitting short black streaks on the veins; a fine waved white line just before termen; cilia ochreous white tinged with brown and with fuscous points towards apex; the underside with the costal area irrorated with brown and with black discoidal spot.

♀. Thorax with more white; fore wing with the postmedial line more strongly dentate on inner half, the white before it confined to a patch beyond the cell.

Hab. Br. N. Guinea, Dinawa (*Pratt*), 2 ♂, Mt. Kebea (*Pratt*), 1 ♂, 1 ♀. *Exp.* 32–40 millim. Type † in Coll. Bethune-Baker.

6786. **Risoba prominens.**

Risoba prominens, Moore, P. Z. S. 1881, p. 329; Hmpsn. Moths Ind. ii. p. 399.
Risoba vialis, Moore, Lep. Atk. p. 91, pl. 4. f. 1 (1881).

♂. Head and thorax red-brown mixed with some white; palpi and frons greyish brown; tegulæ greyish brown irrorated with a few red-brown scales and with dark tips; patagia with white outer edge; pectus whitish tinged with cupreous; fore and mid tibiæ black-brown, the tarsi brownish slightly ringed with white; abdomen whitish irrorated with brown and tinged with rufous at base; subdorsal fuscous patches on 2nd, 3rd, and 4th segments with an oblique white streak below them; the ventral surface ochreous

white at base, black-brown towards extremity. Fore wing iron brown tinged with grey, with some sap-green suffusion on medial and postmedial areas and patches of white suffusion on costal area before postmedial line and on terminal area below apex; a silvery white patch from base of costa to inner margin before middle with some blackish and green on it above inner margin; antemedial line dark, oblique and dentate to submedian fold, then incurved to the basal patch; reniform white defined by brown and with dark point in centre, elliptical; postmedial line acutely angled outwards below costa, then oblique, minutely dentate and defined on inner side by a white band; subterminal line black-brown defined on outer side by white, minutely dentate below costa, strong and incurved between veins 3 and 5, its outer edge emitting a tooth below vein 6, then excurved, dentate, incurved in submedian interspace, some sap-green beyond it between veins 8 and 5 and black streaks on veins 7, 6, some green also below vein 2; the apex brown; some black striæ defined on inner side by white lunules just before termen with slight dark streaks between them on the extremities of the veins; cilia chequered white and black-brown towards apex. Hind wing white tinged with brown, the veins brown; the terminal area broadly fuscous brown; cilia with a fine whitish line at base; the underside with the costal area irrorated with brown, an oblique striga from costa beyond middle, a black discoidal lunule.

♀. Fore wing with white suffusion on outer part of medial area from costa to vein 2, but no white band before the postmedial line which is more strongly dentate and angled inwards in submedian fold.

Ab. 1. Vertex of head, thorax and base of abdomen white slightly tinged with rufous.

Ab. 2. Fore wing tinged with rufous instead of green and with rufous marks beyond the subterminal line.

Hab. Loochoo Is. (*Pryer*), 1 ♀; N. China, 1 ♀; W. China, Chang-Yang (*Pratt*), 1 ♀; Sikhim (*Möller*), 1 ♀; Assam (*Badgley*), 4 ♂, 1 ♀, Khásis, 1 ♀; Burma, N. Khyen Hills, Lotha Range (*Watson*), 1 ♀; Straits Settlements, Malacca, 1 ♂ type; Singapore (*Ridley*), 1 ♂, 4 ♀. *Exp.* 32–36 millim.

6787. Risoba grisea. (Plate CLXXXVI. fig. 5.)

Risoba grisea, Beth. Baker, Nov. Zool. xiii. p. 234 (1906).

♂. Head and thorax red-brown, the tegulæ grey, red-brown at base and tips, the patagia with whitish outer edge; pectus and legs whitish tinged with rufous, the mid tibiæ with dark streak, the tarsi dark brown; abdomen grey suffused with red-brown. Fore wing grey suffused with red-brown and slightly irrorated with black; a white basal patch tinged with rufous except at outer edge which is defined by a minutely waved black line from base of costa

to inner margin before middle; a slight oblique subbasal black striga from costa; antemedial line indistinct, blackish, oblique and dentate to submedian fold, then bent inwards to the basal patch; a black point in middle of cell; reniform defined by black and with black point in centre, rounded; postmedial line strongly bent outwards below costa, then oblique, minutely dentate, defined on inner side by a white band and slightly incurved between veins 4 and 1, some white beyond it on costa; subterminal line blackish slightly defined on outer side by white, minutely dentate below costa, strong and oblique between veins 8 and 5 with a tooth on its outer edge below vein 6, then excurved and minutely dentate and incurved in submedian interspace; an oblique black bar from apex and black streaks on veins 7, 6; a series of black striæ defined on inner side by slight white lunules just before termen; cilia with a series of small blackish spots. Hind wing semihyaline white, the veins and inner area tinged with rufous, the terminal area broadly fuscous; cilia whitish tinged with rufous; the underside with the costal area tinged with brown.

♀. Fore wing with some white suffusion beyond the cell but without white band before the postmedial line, which is angled outwards at vein 1 and inwards above inner margin.

Hab. Br. N. Guinea, Ekeikei (*Pratt*), 2 ♂, 3 ♀. *Exp.* 26–30 millim.

6788. Risoba obstructa.

Risoba obstructa, Moore, P. Z. S. 1881, p. 328; id. Lep. Ceyl. iii. p. 2, pl. 144. ff. 2, 2 *a*, *b*; Hmpsn. Moths Ind. ii. p. 398.

♂. Head and thorax brown mixed with grey and irrorated with black; palpi whitish in front; frons with lateral black bars; tegulæ black at tips; prothorax with black bar; pectus and legs whitish tinged with brown, the hind tibiæ with black streak, the tarsi brown ringed with white; abdomen grey suffused with red-brown and with black dorsal bar on 2nd segment. Fore wing whitish suffused with brown and irrorated with black; a white patch from base of costa to inner margin before middle defined by a slightly waved black line and tinged with red-brown at extremity; a slight oblique subbasal black striga from costa; antemedial line slight, blackish, oblique and waved to submedian fold, then bent inwards to the basal patch; a black point in middle of cell; reniform defined by black and with black point in centre, round; postmedial line strongly angled outwards below costa, then double, defined on inner side by white suffusion extending into the cell and by a white band towards inner margin, incurved below vein 4, some white points beyond it on costa, subterminal line dark brown defined on outer side by white, bent inwards and strong between veins 8 and 5, its outer edge produced to a tooth below vein 6, bent inwards at vein 2; an oblique brown patch from apex and black streaks on

veins 7, 6; a series of black striæ defined on inner side by slight white lunules just before termen; cilia with a waved blackish line at middle. Hind wing white, the terminal area broadly fuscous brown; cilia whitish tinged with brown; the underside with the costal area irrorated with brown.

♀. Fore wing without the white band before postmedial line on inner area, the line dentate above inner margin.

Hab. Br. E. Africa, Samburu (*Betton*), 1 ♀; Punjab (*Strachey*), 1 ♀; Assam (*Badgley*), 1 ♀; Central Provinces, Raipur, 1 ♂; Madras; Horsleykonda (*Campbell*), 1 ♀; Ceylon, 1 ♂, 1 ♀ type; Philippines, Luzon, San Fernando (*McGregor*), 1 ♀; Java (*Horsfield*), 1 ♀. *Exp.* 26–36 millim.

Larva. Semper, Reisen Phil., Schmett. ii. p. 535, pl. R. ff. 8, 9, 10.

Purplish brown, paler at sides; dorsal and lateral white-speckled lines, a sublateral series of whitish streaks; stigmata black; 11th somite with dorsal hump. Food-plants: *Quisqualis* and *Sterculia*.

Cocoon. Greyish.

6789. **Risoba diplogramma**, n. sp. (Plate CLXXXVI. fig. 6.)

♂. Head and thorax dark brown mixed with grey-white, the head browner; tegulæ edged with dark brown; abdomen grey-white tinged with fuscous, the base white, the two following segments with slight dorsal black bars, the crests black, the ventral surface blackish except at base. Fore wing whitish suffused with brown, the medial area whiter, broadly towards costa, a whitish patch tinged with brown and defined on outer side by a black line from base of costa to inner margin before middle; antemedial line double, black, slightly angled outwards below costa and strongly in submedian fold, then incurved to the basal patch; a black point in middle of cell; reniform defined by blackish, round; postmedial line slight, blackish, bent outwards below costa, incurved and dentate below vein 4, some white points with black streaks between them beyond it on costa; subterminal line blackish, minutely dentate below costa, incurved between veins 8 and 6 where it is met by an oblique black fascia from apex, then very indistinct, slightly waved and angled inwards at submedian fold, black streaks beyond it on veins 7, 6, and 1; a series of black points just before termen defined on inner side by slight white lunules; cilia chequered white and fuscous, brownish towards tornus. Hind wing semihyaline white, the terminal area suffused with fuscous brown; cilia whitish tinged with brown; the underside with the costal area irrorated with brown.

Hab. Br. E. Africa, Tana R. (*Crawshay*), 1 ♂; Bechuanaland, N'Gami (*Lugard*), 2 ♂ type. *Exp.* 28–30 millim.

6790. **Risoba sticticraspis**, n. sp. (Plate CLXXXVI. fig. 7.)

♀. Head and thorax white mixed with brown; frons with black bar; pectus and legs white tinged with brown, the fore legs blackish with the tarsi ringed with white; abdomen white tinged with brown, the dorsal crests black. Fore wing grey suffused with red-brown, a patch of white suffusion from costa beyond middle to beyond lower angle of cell, the veins with slight blackish streaks; a white patch from base of costa to inner margin before middle, its outer edge defined by a black line, and with white fascia from it on inner margin to just beyond the postmedial line; an antemedial black striga at inner margin; a black point in middle of cell, the reniform slightly defined by blackish on inner side only; a medial black striga at inner margin; postmedial line indistinct, bent outwards below costa, minutely dentate below vein 6, incurved below vein 4 and with black striga at inner margin; subterminal line strong, black, incurved, with its outer edge minutely dentate and defined by white from costa to vein 6, then very indistinct, minutely dentate and angled inwards in submedian fold; an oblique black shade from apex and a terminal series of black points; cilia chequered whitish and black on apical half, brownish towards tornus. Hind wing white faintly tinged with brown, the terminal area suffused with brown; cilia white tinged with brown; the underside with the costal area irrorated with brown.

Hab. Br. E. Africa, Taveta (*Rogers*), 3 ♀ type. *Exp.* 26 millim.

Genus **MACROBARASA**, nov.

Type, *M. xantholopha.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and broadly scaled in front, the 3rd moderate, porrect; frons smooth, with tuft of hair above; eyes large, round; antennæ of male with fascicles of long cilia, the basal joint and vertex of head between antennæ with tufts of hair; thorax clothed with hair and scales mixed, the prothorax without crest, the metathorax with spreading crest; fore tibiæ fringed on both sides with long hair, the mid and hind tibiæ moderately fringed, the fore and mid tarsi with slight tufts of hair on the joints; abdomen with dorsal crest at base only and with lateral tufts of hair on basal segments. Fore wing with the costa nearly straight, the apex rectangular, the termen strongly excurved, crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with vein 3 from before angle of cell; 5 from above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with oblique dark band beyond the antemedial line from cell to inner margin ..... *xantholopha.*
B. Fore wing without oblique dark band beyond the antemedial line ..... *xanthosticta.*

6791. Macrobarasa xantholopha.

Blenina xantholopha, Hmpsn. Moths Ind. iv. p. 526 (1896).

♂. Head and thorax white mixed with red-brown; palpi with the 2nd joint black above; tegulæ with black line near base, dorsally edged with black and with black point at middle; patagia with black point at middle; metathorax with small tuft of pale yellow scales; mid tarsi black except at base; abdomen white mixed with fuscous brown, paler at base and extremity, the ventral surface ochreous. Fore wing whitish suffused in parts with red-brown, the base, disk and middle of terminal area paler, the veins with slight dark streaks; subbasal line slight, interrupted, waved, from costa to submedian fold where there is a minute tuft of yellow scales on it; antemedial line black, with two slight dentitions below costa, then waved and with black band on its outer edge from cell

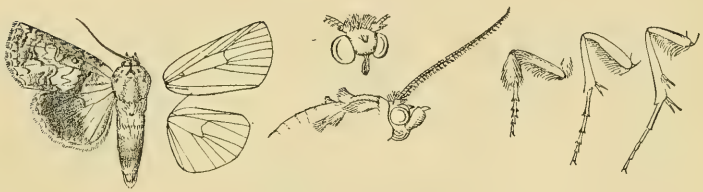


Fig. 159.—*Macrobarasa xantholopha*, ♂. ½.

to inner margin where it extends to the medial line; orbicular minute, round, defined by black and filled in with yellow; reniform rather narrow, defined by black, its upper part filled in with rufous, its lower by pale yellow; medial line black, slightly angled inwards below costa, then oblique to lower angle of cell, angled inwards to before origin of vein 2 and with three dentitions above inner margin; postmedial line double, the inner line black, the outer rufous, strongly bent outwards and produced to a slight point below costa, then excurved, dentate at veins 4, 3, then incurved and angled outwards at vein 1; subterminal line black with some white suffusion before and beyond it towards costa where it is minutely dentate, angled inwards at discal and submedian folds, and with black streaks beyond it on the veins; a fine waved dark terminal line. Hind wing whitish tinged with rufous, the veins brown, the terminal area fuscous black, broadly at costa, narrowing to tornus; cilia ochreous white with some fuscous mixed; the underside whitish, the terminal area suffused with fuscous, a black discoidal lunule and diffused curved postmedial line from costa to vein 2.

Hab. Assam, Khásis (*Badgley*), 2 ♂ type. *Exp.* 38 millim.

*6792. **Macrobarasa xanthosticta.** (Plate CLXXXVI. fig. 8.)

Argyrothripa xanthosticta, Hmpsn. Moths Ind. ii. p. 381 (1894).

♂. Head and thorax white mixed with brown; palpi with the 1st and 2nd joints at sides and sides of frons black; vertex of head with black streak; tegulæ with black medial line and slight streaks at dorsum and middle; pectus and legs white; abdomen white irrorated with brown and dorsally tinged with rufous. Fore wing white thickly irrorated with brown; subbasal line black, waved, from costa to vein 1, a yellow point beyond it at submedian fold; the antemedial area with brown shade; antemedial line black, oblique, slightly angled outwards below costa and inwards at submedian fold; medial line black, oblique from costa to lower angle of cell, then retracted and sinuous; reniform defined by black and filled in with lemon-yellow on basal part, a faint figure-of-eight shaped brown-edged mark beyond it between veins 7 and 3; postmedial line black, excurved from costa to vein 4, then incurved and sinuous, another faint brown line beyond it; subterminal line rather diffused, black, somewhat dentate and interrupted, defined on each side by white at costa, angled inwards at discal fold and at submedian fold to near postmedial line; a terminal series of slight blackish lunules; cilia white chequered with brownish. Hind wing white faintly tinged with ochreous, the terminal area broadly fuscous brown; cilia white chequered with brownish; the underside with small blackish discoidal spot.

Hab. Sikhim (*Möller*), type † ♂ in Coll. Rothschild. *Exp.* 36 millim.

Genus **BAILEYA.**

	Type.
Leptina, Guen. Noct. i. p. 14 (1852), nec. Mieg. Dipt. (1830)...	*dormitans.*
Baileya, Grote, Abh. Nat. Ver. Brem. xiv. p. 123 (1895)	*dormitans.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to middle of frons and moderately scaled, the 3rd joint short; frons smooth; eyes large, round; antennæ of male with long fasciculate cilia; thorax clothed with scales and hair mixed, the pro- and metathorax with spreading crests; fore tibiæ fringed with long hair on outer side, the mid and hind tibiæ moderately fringed with hair; abdomen without crests. Fore wing long and narrow, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a rather long areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with oblique white patch at base.
  a. Fore wing with white discoidal lunule defined on outer side by an oblique black patch, the postmedial line prominent and white ..... *doubledayi.*
  b. Fore wing without prominent white postmedial line.
    a^1. Fore wing with the reniform round with black point in centre ..... *ophthalmica.*

b^1. Fore wing with the reniform indistinct and elliptical, without dark centre ..... *australis*.

B. Fore wing without oblique white patch at base.

a^1. Fore wing with brown basal patch defined on outer side by an oblique black line ..... *dormitans*.

b^1. Fore wing without oblique black line defining a basal patch..... *levitans*.

6793. Baileya doubledayi. (Plate CLXXXVI. fig. 9.)

Leptina doubledayi, Guen. Noct. i. p. 15 (1852); Smith, Cat. Noct. N. Am. p. 30.

♀. Head and thorax red-brown mixed with white; shoulders white; abdomen brown, whitish at base. Fore wing white tinged with lilacine grey and irrorated with brown; a basal white patch enclosing some brown suffusion on base of inner margin, its outer edge obliquely curved from base of costa to inner margin before middle, some red-brown suffusion beyond it; a slight white discoidal lunule with oblique black-brown patch on its outer edge; postmedial line white, bent outwards below costa, obliquely curved to lower angle of cell, then oblique to inner margin; postmedial area suffused with reddish brown; subterminal line white defined on inner side by black-brown except at middle, with a triangular black-brown patch on its inner side below submedian fold and small spot above inner margin, angled inwards at discal fold and vein 2, the area beyond it suffused with brown except below apex; a brown terminal line except towards tornus; cilia pale brown, whitish towards apex. Hind wing white slightly suffused with reddish brown, the cilia white; the underside with brown discoidal spot and traces of diffused postmedial and subterminal lines.

Hab. U.S.A., Maine, Massachusetts, 1 ♀, New York (*Doubleday*), 1 ♀ type, Pennsylvania. *Exp.* 28–32 millim.

6794. Baileya ophthalmica. (Plate CLXXXVI. fig. 10.)

Leptina ophthalmica, Guen. Noct. i. p. 15, pl. 3. f. 6 (1852); Smith, Cat. Noct. N. Am. p. 30.

Head, thorax, and abdomen white irrorated with black-brown; palpi at tips and frons brown; fore and mid legs brown, the tarsi slightly ringed with white. Fore wing brown irrorated with black; an oblique white patch defined on outer side by black from base of costa to inner margin before middle, sometimes with some brown suffusion on it; traces of a dark antemedial line, oblique from costa to submedian fold, then bent inwards to the basal patch; a large patch of white suffusion from costa beyond middle to just below lower angle of cell, extending on costa to just beyond the postmedial line, the reniform placed on it, round, defined by brown and with black point in centre; postmedial line with oblique diffused brown bar from costa, strongly bent outwards and almost obsolete

below costa, rather oblique and very slightly waved to vein 4, then bent inwards to below end of cell, bent outwards at vein 1 and defined on each side by white at inner margin; subterminal line white defined on inner side by black-brown and with oblique black-brown streaks beyond it above and below vein 7, incurved from costa to vein 5 below which it is angled inwards, then minutely waved, excurved at middle and incurved below vein 2; the terminal area suffused with white towards apex; a terminal series of small black lunules defined on inner side by white. Hind wing white irrorated with brown, the terminal area slightly suffused with brown; a terminal series of brown striæ; the underside white slightly irrorated with brown, a small brown discoidal spot, postmedial line with minute dark streaks on the veins, incurved below vein 3, and faint subterminal shade.

Hab. U.S.A., Massachusetts, New York (*Doubleday*), 2 ♂, 2 ♀ type, Evans Center (*Grote*), 2 ♀, Wisconsin, 1 ♀. *Exp.* 30–34 millim. Probably an aberration of *B. dormitans*.

6795. **Baileya australis.** (Plate CLXXXVI. fig. 11.)

Leptina australis, Grote, Can. Ent. xiii. p. 152 (1881); Smith, Cat. Noct. N. Am. p. 30.

♀. Head and thorax grey-brown mixed with white; tegulæ tipped with black; tarsi slightly ringed with white; abdomen white suffused with brown. Fore wing grey-brown slightly irrorated with black; an oblique white patch from base of costa to inner margin before middle with some brown suffusion on it at inner margin, its outer edge defined by black; an indistinct dark antemedial line, oblique from costa to submedian fold, then bent inwards to the white patch; traces of a waved medial shade; reniform indistinctly defined by black, elliptical; a patch of white suffusion from costa beyond middle to just below the cell; postmedial line dark slightly defined on outer side by white, strongly bent outwards below costa, at vein 4 bent inwards to below end of cell, then oblique to inner margin; subterminal line white defined on inner side by black and with black streaks beyond it above and below vein 8, oblique from costa to vein 6, slightly angled inwards at discal fold, excurved at middle and angled inwards at submedian fold; the terminal area with more or less white suffusion towards apex; a terminal series of black striæ defined on inner side by white. Hind wing white suffused and irrorated with brown, the inner area whiter except towards termen, a terminal series of dark striæ; the underside white, the costal and terminal areas irrorated with brown, a blackish discoidal lunule and diffused curved postmedial and subterminal lines.

Hab. U.S.A., Alabama, 1 ♀, Texas, 1 ♀ type, Kerrville, 1 ♀. *Exp.* 28 millim.

6796. Baileya dormitans.

Leptina dormitans, Guen. Noct. i. p. 15 (1852); Smith, Cat. Noct. N. Am. p. 30.
Leptina latebricola, Grote, Proc. Ent. Soc. Phil. ii. p. 57 (1863).

Head and thorax grey-brown with some black scales, the tegulæ slightly tipped with black; pectus, legs, and abdomen white mixed with brown, the fore tarsi blackish ringed with white. Fore wing brown, the medial area and apex tinged with lilacine grey; an oblique patch from base of costa to inner margin before middle defined on outer side by black and also sometimes slightly by white; traces of a dark antemedial line, oblique from costa to submedian fold, then bent inwards to the basal patch; a black discoidal point and traces of a dark annulus representing the reniform; postmedial line dark defined on outer side by grey, strongly

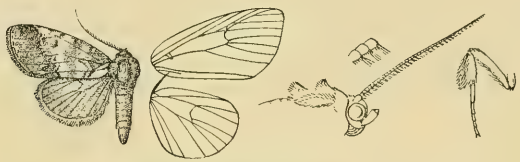


Fig. 160.—*Baileya dormitans*, ♂. ½.

bent outwards below costa, then minutely waved, at vein 4 bent inwards to below end of cell and again bent outwards at vein 1; subterminal line white defined on inner side by black-brown, faintly at middle, and with oblique black-brown streaks beyond it above and below vein 7, incurved from costa to vein 5 below which it is angled inwards, excurved and waved at middle, bent inwards and dentate below vein 2; a terminal series of dark striæ slightly defined on inner side by whitish. Hind wing whitish almost entirely suffused with brown, a fine brown terminal line; the underside white irrorated with brown, a slight dark discoidal lunule and diffused postmedial and subterminal shades with dark streaks on the veins.

Hab. Canada; U.S.A., Maine, New York, 2 ♂, 1 ♀, Trenton Falls (*Doubleday*), 2 ♂ type, Evans Center (*Grote*), 2 ♂, Rhode I., New Jersey, Wisconsin. *Exp.* 32–36 millim.

*6797. Baileya levitans. (Plate CLXXXVI. fig. 12.)

Leptina levitans, Smith, J. N.Y. Ent. Soc. xiv. p. 9 (1906).

♀. Head and thorax dark brown mixed with grey; tarsi brown ringed with white; abdomen whitish dorsally suffused with brown, ventrally irrorated with brown. Fore wing pale grey-brown, the

antemedial area suffused with fuscous, the area before the post-medial line suffused with white, broadly to median nervure, then narrowly, the costal area suffused with fuscous towards apex, the apical half of terminal area slightly suffused with white; subbasal line indistinct, curved, from costa to submedian fold; antemedial line double, oblique and minutely waved from costa to submedian fold, then incurved; claviform and orbicular absent; reniform small, elliptical, white defined by brown and with black spot in centre; a diffused oblique medial line, stronger at costa; post-medial line sharply angled outwards below costa, oblique from vein 4 to submedian fold, then excurved, with a diffused maculate dark line beyond it; subterminal line formed by a series of diffused rather dentate dark marks, oblique towards costa, excurved at middle and incurved in submedian fold; a terminal series of slight brown lunules; cilia with slight pale lines at base and middle. Hind wing ochreous whitish suffused with brown, a brown terminal line; cilia ochreous whitish; the underside white, the costal and terminal areas irrorated with brown, a brown discoidal lunule, indistinct diffused postmedial line and subterminal series of spots.

Hab. Canada, Ontario; U.S.A., New Hampshire. *Exp.* 36 millim. Figured from a drawing from specimen in U.S. Nat. Mus.

Genus **GYRTOTHRIPA**, nov.

Type, *G. pusilla.*

Proboscis fully developed; palpi with the 2nd joint porrect, extending about the length of head and broadly fringed with scales above, the 3rd obliquely upturned, short; frons smooth, with large tuft of hair; eyes large, round; antennæ of male minutely ciliated; thorax clothed entirely with scales and without crests; tibiæ moderately fringed with hair; pectus of male with lateral fringe of very large scales; abdomen with dorsal crests on two basal segments. Fore wing with the apex rectangular, the termen evenly curved and not crenulate; vein 3 from well before angle of cell; 5 from just above angle; 6 from upper angle; 9 and 10 anastomosing with 7, 8 to form a minute areole; 11 from cell. Hind wing with veins 3, 4 strongly stalked; 5 fully developed from angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

A. Hind wing with the interspaces semihyaline ..... *pusilla.*
B. Hind wing with the interspaces not semihyaline ..... *microdonta.*

6798. **Gyrtothripa pusilla.**

Gyrtona pusilla, Moore, Lep. Atk. p. 289 (1888); Hmpsn. Moths Ind. ii. p. 405.

Head and thorax grey tinged with olive-brown; palpi redder brown; pectus white; fore and hind legs suffused with dark brown, the tarsi blackish ringed with white; abdomen grey tinged

with brown, the ventral surface white. Fore wing grey suffused with pale olive-brown, the costa and termen tinged with purple-brown; the lines olive; antemedial line indistinct, double, curved; medial line indistinct, double, very slightly sinuous, with a leaden-grey band before it between subcostal nervure and vein 1; a minute blackish discoidal point; postmedial line indistinct, double,

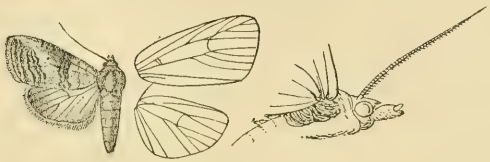


Fig. 161.—*Gyrtothripa pusilla*, ♂. ¾.

obliquely curved downwards from costa to vein 6, then minutely waved, somewhat oblique and with some leaden grey beyond it followed by another line; subterminal line whitish defined on each side by olive, minutely waved; a fine red-brown terminal line. Hind wing semihyaline white, the veins and termen brown; cilia whitish at tips.

Hab. Gold Coast, Accra (*Sir G. Carter*), 2 ♂, 4 ♀; Punjab, Simla, 1 ♀; Sikhim (*Dudgeon*), 1 ♀; Assam, Nagas; Bengal, Calcutta (*Atkinson*), 1 ♀ type, Ganjam; Ceylon, Trincomali (*Green*), 1 ♀; Andamans, 1 ♀; Singapore (*Ridley*), 2 ♀; Queensland, Townsville (*Dodd*), 1 ♂, 1 ♀. *Exp.* 16–22 millim.

6799. Gyrtothripa microdonta, n. sp.
(Plate CLXXXVI. fig. 13.)

♀. Head and thorax white mixed with dark brown, the tegulæ dark brown at tips; abdomen white faintly tinged with brown, the basal crest with brown tip; pectus, legs, and ventral surface of abdomen white; a brown spot at base of cell; antemedial line double, brown, oblique from costa to submedian fold, angled inwards at vein 1 and outwards above inner margin, an oblique brown band beyond it from costa to submedian fold; medial line double, dentate to discal fold, then oblique to submedian fold where it terminates; a black discoidal point on a slight whitish mark; postmedial line double, dentate, oblique to vein 6, angled inwards at discal fold and oblique below vein 4; a subterminal series of small dentate blackish marks, the marks above and below discal fold further from termen; a terminal series of blackish points. Hind wing whitish suffused with brown.

Hab. Singapore (*Ridley*), 1 ♀ type; Java (*Horsfield*), 1 ♀. *Exp.* 18 millim.

Genus **MEDAVA.**

Type.
Medava, Wlk. xxvii. 113 (1863) ..... *diminuens.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to middle of frons and fringed with hair behind towards extremity, the 3rd short, porrect; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; fore tibiæ fringed with long hair on outer side, the mid and hind tibiæ moderately fringed with hair; abdomen without crests. Fore wing rather long and narrow, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

6800. **Medava diminuens.**

Medava diminuens, Wlk. xxvii. 113 (1863).

♂. Head, thorax, and abdomen grey mixed with dark brown. Fore wing grey irrorated with brown, the antemedial area suffused with dark brown widening to costa, the extreme base white; subbasal line represented by blackish striæ from costa and cell; antemedial line indistinct, double, waved; a dark point on middle of costa, slight discoidal point and faint oblique shade from cell to inner margin; postmedial line indistinct and defined on outer

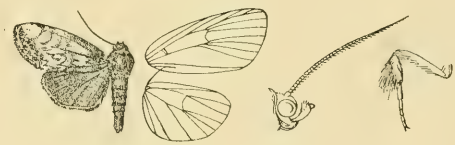


Fig. 162.—*Medava diminuens*, ♂. $\frac{3}{2}$.

side by whitish, with dark point at costa, somewhat oblique to vein 6, incurved at discal fold, then dentate and at vein 3 recurved to lower angle of cell; subterminal line indistinct, whitish, minutely dentate, with dark patch on its inner side at costa and point on outer; a terminal series of small brown spots defined on inner side by white lunules. Hind wing whitish suffused with brown; cilia whitish.

Hab. Brazil, Amazons, Ega (*Bates*), 1 ♂ type. *Exp.* 22 millim.

Genus **STICTOTHRIPA**, nov.

Type, *S. grisella.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about middle of frons and moderately scaled, the 3rd typically long and porrect; frons smooth; eyes large, round; antennæ of female ciliated; thorax clothed chiefly with scales, the metathorax with depressed crest; fore femora and tibiæ fringed with long hair, the mid and hind tibiæ moderately fringed with

hair; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 9 and 10 anastomosing with 8 to form a long areole, 7 from end of areole; 11 from cell. Hind wing with vein 3 from near angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 typically anastomosing with the cell to near middle.

Sect. I. Palpi with the 3rd joint long and porrect; hind wing with vein 8 anastomosing with the cell to near middle.

6801. **Stictothripa grisella.**

Thalpochares grisella, Schaus, Trans. Am. Ent. Soc. xxx. p. 162 (1904).

♀. Head and thorax grey mixed with brown; pectus, legs, and abdomen grey tinged with brown. Fore wing grey-white tinged with red-brown except on terminal area and irrorated with a few black scales, the costal edges brownish on basal half; antemedial line blackish and inwardly oblique from costa to middle of cell, double below the cell and slightly angled inwards on vein 1; orbicular represented by a black point, the reniform by a faint

Fig. 163.—*Stictothripa grisella*, ♀. ½.

whitish bar with whitish patch above it on costa defined on outer side by an oblique brown shade crossing the postmedial line, which is black slightly angled inwards below costa, then represented by a series of small black spots and a lunule in submedian interspace, excurved to vein 3, then incurved; subterminal line indistinct, red-brown, slightly incurved at discal fold and crossed by two short black streaks above tornus; a series of black points just before termen from apex to the streaks above tornus. Hind wing greyish suffused with brown. Underside of both wings suffused with red-brown.

Hab. Venezuela, Aroa, 1 ♀. *Exp.* 20 millim. Type † ♀ in U.S. Nat. Mus.

Sect. II. Palpi with the 3rd joint short and upturned, antennæ of male minutely serrate and fasciculate; hind wing with vein 8 anastomosing with the cell near base only.

A. Fore wing without yellow suffusion beyond the cell ..... *albescens*.
B. Fore wing with the yellow suffusion beyond the cell ..... *delaia*.

*6802. Stictothripa albescens.

Stictothripa albescens, Dogn. Het. Nouv. Am. Sud, iii. p. 17 (1911).

♂. Head white, the palpi brown; thorax and abdomen white mixed with brown, the latter with slight brown segmental lines; femora brown; tarsi black-brown ringed with white; anal tuft black-brown below. Fore wing white, the basal half and costal and inner areas irrorated with brown; slight dark subbasal spots on costa, in and below the cell; antemedial line blackish, sinuous; a blackish discoidal spot with slight spot above it on costa; an indistinct oblique sinuous brown line from lower angle of cell to inner margin and oblique blackish fascia from lower angle of cell to subterminal line at submedian fold; postmedial line slight, black, sinuous to vein 4, then oblique to vein 2 and acutely angled inwards on vein 1 to the medial line; subterminal line fuscous, incurved below costa and at vein 5, incurved and sinuous below vein 3, and below vein 2 oblique and black to tornus; the terminal

Fig. 164.—*Stictothripa albescens*, ♂. ½.

area with some brownish suffusion from apex to vein 5 and a spot below vein 4; a terminal series of slight brown striæ; cilia with series of small brown spots. Hind wing white, the veins and inner area suffused with brown; a fine brown terminal line; the underside with the costal area irrorated with brown, a slight blackish discoidal spot, crenulate postmedial line excurved below costa and streaks on the extremities of the veins.

Hab. Fr. Guiana, St. Laurent Maroni, type ♂ in Coll. Dognin.
Exp. 34 millim.

*6803. ?Stictothripa delaia. (Plate CLXXXVI. fig. 14.)

Stictothripa delaia, Schaus, A. M. N. H. (8) viii. p. 213 (1911).

♀. Head, thorax, and abdomen white irrorated with brown; tarsi brown ringed with white. Fore wing white irrorated with pale brown and tinged in parts with olive-yellow; a slight subbasal red-brown mark above vein 1; antemedial line blackish defined on inner side by white, sinuous; a narrow black-brown discoidal lunule with an oblique bar above it from costa and an oblique black streak from lower angle of cell to just beyond subterminal line above vein 2; postmedial line black, oblique and sinuous to just

above vein 6, slightly incurved at discal fold, excurved at middle, below vein 3 bent inwards, and angled inwards on vein 1, a faint olive line beyond it; two small blackish spots on postmedial part of costa; subterminal line blackish, slightly angled outwards below costa and more strongly at veins 6, 4, 3, angled inwards at vein 2, then with strong black shade defined on inner side by brown and ending at tornus; a faint yellowish line before termen; a terminal series of brown striæ and a spot between veins 4, 3; cilia yellowish at base, white at tips, with dark line at middle, and series of black points at tips. Hind wing white, the inner and terminal areas tinged with brown, a narrow black discoidal bar; traces of postmedial and subterminal dark points on the veins and oblique bars from vein 2 to inner margin; a terminal series of dark points; cilia with a dark line at middle; the underside with the costal area irrorated with brown; the postmedial line crenulate to vein 2 and excurved below costa, the termen with dark patch to vein 5, subterminal spots on median nervules and oblique black bar at tornus.

Fore wing with vein 9 from 10 anastomosing with 8 to form a moderate areole.

Hab. Costa Rica, Sixola R. (*Schaus*), type † ♂ in U.S. Nat. Mus. *Exp.* 42 millim.

Genus **GYRTONIDES**, nov.

Type, *G. albifascia.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to middle of frons and slightly fringed with hair behind towards extremity, the 3rd short, porrect; frons smooth with tuft of hair above; eyes large, round; antennæ of male with long cilia; thorax clothed almost entirely with scales and without crests; fore tibiæ fringed on both sides with long hair, the mid and hind tibiæ moderately fringed with hair; abdomen without crests. Fore wing rather long and narrow, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long narrow areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

6804. **Gyrtonides albifascia**, n. sp.

♂. Head and tegulæ rufous mixed with brown and grey, thorax brown mixed with grey; pectus and hind legs white; abdomen

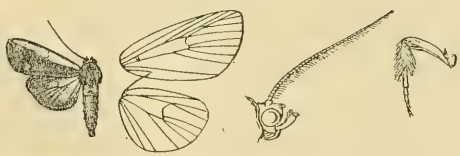


Fig. 165.—*Gyrtonides albifascia*, ♂. ½.

brown, white at base and sides, the anal tuft rufous with dorsal black streak defined by white, the ventral surface pale rufous

with pair of minute black streaks on anal segment. Fore wing grey-brown, the costal edge black with rufous streak below it and white fascia below that; some black scales on inner margin near base, followed by a white point then a small black spot; an indistinct brown discoidal annulus with striga in centre; postmedial line indistinct, brown, excurved below costa, bent inwards at vein 3 to lower angle of cell, then minutely waved, some white points beyond it on costa; subterminal line slight, dark defined on outer side by white points, oblique to vein 6; a terminal series of blackish points. Hind wing semihyaline white, the veins and terminal area suffused with brown; cilia whitish at tips.

Hab. Brazil, Amazons, Ega (*Bates*), 1 ♂ type. *Exp.* 24 millim.

List of unrecognised Species.

Axia tawan, Pag. Jahrb. Nass. Ver. xxxix. p. 127 (1875); Kirby, Cat. Lep. Het. p. 370	Aru.
Casandria emittens, Wlk. xi. 606 (1857); type lost.	Jamaica.
Cremnopalpus inquirendus, Strand, Archiv f. Naturg. 75, i. p. 383 (1909)	Zambesi.
Gadirtha rectifera, Wlk. xxxiii. 897 (1865); type lost	Ceylon.
Leianophera transfossa, Möschl. Abh. Senck. Ges. xvi. p. 136, f. 16 (1890)	Porto Rico.
Symitha fasciosa, Moore, Lep. Atk. p. 289 (1888); Hmpsn. Moths Ind. ii. p. 387	Sikhim.

Subfamily ACONTIANÆ.

Proboscis almost always fully developed, rarely aborted and non-functional; palpi usually long and upturned, the 3rd joint sometimes very long and dilated at extremity, sometimes oblique or porrect and fringed with hair above, in *Topadesa* downcurved and rostriform; frons almost always smooth, in *Leucophanera* with a pointed prominence; eyes large, round, naked and without cilia from their margins; antennæ usually ciliated, often somewhat laminate and almost simple, rarely pectinated; head and thorax usually clothed almost entirely with scales, sometimes clothed with hair only, usually without crests or with small crests on pro- and metathorax, sometimes with ridge-like dorsal crest; tibiæ without spines or claws, in *Carea* and *Careades* the males of most of the species have the hind tibiæ very short with the spurs more or less aborted, the 1st joint of tarsus very long, dilated and fringed with hair; abdomen usually with one or two crests at base, rarely with a dorsal series of crests or without crests. Fore wing usually broad and triangular, the termen curved or straight, often with the termen angled or excurved at middle and excised below apex or towards tornus, the inner margin sometimes with scale-teeth at middle or tornus; vein 1 weak and not anastomosing with 1 *b*; 1 *c* absent; 2 from middle of cell; 3 and 5 from near lower angle, or 3 from well before angle; 6 from or from below upper angle, rarely from the areole; 9 usually from 10 anastomosing with 8 to form the areole which is often long and narrow, or both 9 and 10 anastomosing with 7, 8 to form a minute areole, or the areole obsolete and veins 7, 8, 9 or 7, 8, 9, 10 stalked, or 8, 9, 10 stalked and vein 7 from the cell; vein 11 from the cell. Hind wing with the termen usually evenly curved, sometimes excurved at middle and excised towards tornus; veins 1 *a* and 1 *b* present, 1 *c* absent; 3, 4 from angle of cell or stalked; 5 fully developed, usually from or from just above angle of cell, rarely stalked with 3, 4 or from near middle of discocellulars, veins 3, 4 sometimes coincident; 6, 7 from upper angle of cell or shortly stalked; 8 usually anastomosing with the cell near base only, but often to middle.

The fore wing of male has a strong bar-shaped retinaculum, but in *Earias*, *Tyana*, *Hylophila bicolorana*, *Ariolica triangulifera*, *Cerala*, *Topadesa* and *Gabala* this has become aborted and is replaced by a tuft of hair from below median nervure; the wing is smoothly scaled except in *Cerala*, which has slight tufts of raised scales at middle and end of cell.

The Larvæ have all the prolegs present and are sparsely clothed with hair and form a boat-shaped cocoon of silk with an angular projection in front on dorsum spun on a twig, except in *Acontia*, *Leocyma*, and probably *Armactica*, in which the larvæ are semilooping

with the 1st two pairs of prolegs aborted and form a cocoon underground, and these genera might perhaps be placed in the

Fig. 166.—Larva and cocoon of *Hylophila prasinana*. ½.

Erastrianæ, which would then take the name *Acontianæ* and this subfamily the name *Eariasinæ*.

Key to the Genera.

A. Fore wing without an areole.
- *a*. Fore wing with veins 8, 9 absent in male, 8 shortly stalked with 7 in female ..... NEAXESTIS, p. 638.
- *b*. Fore wing with veins 7, 8 and 10 stalked, 9 absent, hind wing with veins 3, 4 coincident. CAMPTOZADA, p. 575.
- *c*. Fore wing with veins 7, 8, 9, 10 stalked.
  - a^1. Fore wing with the termen angled at vein 4.
    - a^2. Abdomen with dorsal crests on three basal segments ..... TROGOBRIGA, p. 616.
    - b^2. Abdomen with dorsal crest at base only ..... CHLETHROPHORA, p. 535.
  - b^1. Fore wing with the termen evenly curved.
    - a^2. Hind wing with vein 4 absent ..... TYANA, p. 492.
    - b^2. Hind wing with veins 3, 4 strongly stalked ..... MICROZADA, p. 580.
    - c^2. Hind wing with veins 3, 4 from cell or slightly stalked.
      - a^3. Fore wing with the apex produced and acute, the termen almost straight ..... HYLOPHILODES, p. 510.
      - b^3. Fore wing with the apex hardly produced, the termen curved ..... CHLOROPLAGA, p. 596.
- *d*. Fore wing with veins 7, 8, 9 stalked, 10 from cell.
  - a^1. Frons with pointed prominence with corneous plate below it ..... LEUCOPHANERA, p. 481.
  - b^1. Frons without prominence.
    - a^2. Hind wing with veins 3, 5 stalked, 4 absent ..... EARIAS, p. 496.
    - b^2. Hind wing with veins 3, 4 shortly stalked or from angle of cell, 5 from the cell.
      - a^3. Fore wing with lobe at middle of inner margin and scale-tooth at tornus ..... PARAXESTIS, p. 641.
      - b^3. Fore wing without lobe and scale-tooth on inner margin ..... PARHYLOPHILA, p. 514.

OGE

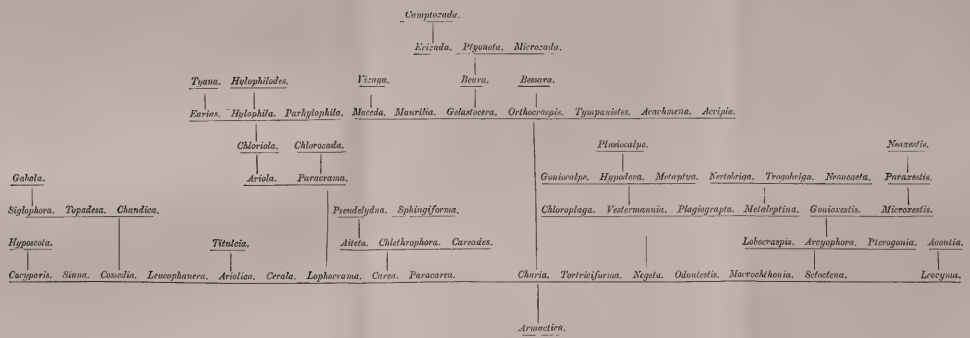
izaga.

ceda. Ma

ydna. Sp

Chlethr

Carea.


Camptozada.
Erizada.
Ptyonota.
Microzada.
Tyana.
Hylophilodes.
Vizaga.
Beova.
Bossova.
Farias.
Hylophila.
Parhylophila.
Maceda.
Maurilia.
Gelastocera.
Orthocraspis.
Tympanistes.
Acrachmena.
Acripia.
Chloriola.
Chlorozada.
Plusiocalpe.
Neazestis.
Ariola.
Paracrama.
Gouiocalpe.
Hypodeva.
Metaptya.
Kertoloriga.
Tropobriga.
Neaneaeta.
Parazestis.
Gabala.
Siglophora.
Topadesa.
Chandica.
Pseudelydna.
Sphingiformia.
Chloroplaga.
Vestermannia.
Plagiograpta.
Metaleptina.
Gouiozestis.
Microzestis.
Hyposcota.
Titulcia.
Aiteta.
Chlethrophora.
Careades.
Lobocraspis.
Areyophora.
Pterogonia.
Aconitia.
Cacyporis.
Sinna.
Cossedia.
Leucophaviera.
Ariolica.
Cerata.
Lophocrama.
Carea.
Paracarea.
Chuvia.
Tortriciformia.
Negeta.
Odontestis.
Macrochthonia.
Schoetena.
Leucynna.
Armactica.

e. Fore wing with veins 8, 9, 10 stalked, or 9 absent, 7 from cell.
  a^1. Fore wing with the termen strongly angled at vein 6 and excurved at middle ..... TORTRICIFORMA, p. 594.
  b^1. Fore wing with the termen angled at vein 4.
    a^2. Abdomen with forked anal tuft; hind wing with vein 8 anastomosing with the cell near base only ..... GONIOCALPE, p. 597.
    b^2. Abdomen without forked anal tuft; hind wing with vein 8 anastomosing with the cell to beyond middle ..... LOBOCRASPIS, p. 636.
  c^1. Fore wing with the termen excised below apex and excurved at middle ..... ERIZADA, p. 577.
  d^1. Fore wing with the termen evenly curved.
    a^2. Fore wing with scale-tooth at middle of inner margin.
      a^3. Abdomen with basal crest; palpi with the 3rd joint long.
        a^4. Hind wing with veins 3, 4 strongly stalked ..... PLAGIOGRAPTA, p. 613.
        b^4. Hind wing with veins 3, 4 from cell. NEONEGETA, p. 617.
      b^3. Abdomen without crests; palpi with the 3rd joint short ..... MICROXESTIS, p. 642.
    b^2. Fore wing without scale-tooth on inner margin.
      a^3. Abdomen with large crests on four basal segments; fore wing with the inner margin highly arched ..... NERTOBRIGA, p. 614.
      b^3. Abdomen with small crests on two basal segments; fore wing with the inner margin not highly arched.
        a^4. Fore wing with vein 9 absent; hind wing with veins 3 and 5 stalked, 4 absent ..... TITULCIA, p. 482.
        b^4. Fore wing with vein 9 present; hind wing with vein 4 present.
          a^5. Hind wing with vein 5 from near lower angle of cell.
            a^6. Hind wing with the termen excised towards tornus.
              a^7. Palpi with the 2nd joint reaching far above vertex of head, the 3rd with tuft of hair towards extremity ..... GABALA, p. 469.
              b^7. Palpi with the 2nd joint not reaching far above vertex of head, the 3rd without tuft of hair towards extremity ..... SIGLOPHORA, p. 472.
            b^6. Hind wing with the termen not excised towards tornus ... CHLOROZADA, p. 517.
          b^5. Hind wing with vein 5 from middle of discocellulars ..... ARIOLICA, p. 485.
      c^3. Abdomen without crests.
        a^4. Palpi with the 3rd joint long and dilated at extremity ..... HYPOSCOTA, p. 460.
        b^4. Palpi with the 3rd joint moderate and not dilated at extremity ..... HYLOPHILA, p. 511.
f. Fore wing with veins 7, 8 and 9, 10 stalked.
  a^1. Palpi obliquely upturned ..... ACONTIA, p. 653.
  b^1. Palpi upturned, curved ..... LEOCYMA, p. 661.

B. Fore wing with an areole.
  a. Fore wing with veins 9 and 10 anastomosing with 8 to form the areole.
    a^1. Thorax with dorsal ridge-like crest; hind wing with scale-fan at tornus ..... METAPTYA, p. 601.
    b^1. Thorax without dorsal ridge-like crest; hind wing without scale-fan at tornus.
      a^2. Fore wing with scale-tooth at tornus ... PLUSIOCALPE, p. 598.
      b^2. Fore wing without scale-tooth at tornus.
        a^3. Abdomen with dorsal crests on basal segments.
          a^4. Palpi with the 2nd joint reaching to vertex of head, the 3rd long ... METALEPTINA, p. 620.
          b^4. Palpi with the 2nd joint reaching to middle of frons, the 3rd short in male, moderate in female ..... CHLORIOLA, p. 515.
        b^3. Abdomen with large fan-shaped basal crest ..... PTYONOTA, p. 579.
        c^3. Abdomen with minute basal crest.
          a^4. Fore wing with the areole minute; hind wing with vein 5 from angle of cell ..... BEARA, p. 581.
          b^4. Fore wing with the areole long; hind wing with vein 5 from above angle of cell ..... GELASTOCERA, p. 583.
        d^3. Abdomen without crests.
          a^4. Build slender; thorax clothed with hair and scales mixed ..... SINNA, p. 465.
          b^4. Build stout; thorax clothed with hair only ..... TYMPANISTES, p. 587.
  b. Fore wing with vein 9 from 10 anastomosing with 8 to form the areole.
    a^1. Hind wing with vein 5 stalked with 3, 4 ... CHANDICA, p. 478.
    b^1. Hind wing with vein 5 from just above angle of cell.
      a^2. Fore wing with scale-tooth at middle of inner margin.
        a^3. Fore wing with the termen angled at vein 4 ..... GONIOXESTIS, p. 637.
        b^3. Fore wing with the termen evenly curved.
          a^4. Fore wing with scale-tooth at tornus; hind wing with vein 8 anastomosing with the cell near base only ..... ODONTESTIS, p. 632.
          b^4. Fore wing without scale-tooth at tornus; hind wing with vein 8 anastomosing with the cell to beyond middle ..... ARCYOPHORA, p. 642.
      b^2. Fore wing without scale-tooth at middle of inner margin.
        a^3. Abdomen with dorsal crests on basal segments.
          a^4. Fore wing with scale-tooth at tornus ..... HYPODEVA, p. 599.
          b^4. Fore wing without scale-tooth at tornus.
            a^5. Prothorax with triangular ridge-like crest; fore wing with the termen excised below apex and excurved at middle ..... MACROCHTHONIA, p. 635.

b^5. Prothorax with small spreading crest ..... VESTERMANNIA, p. 603.
c^5. Prothorax without crest.
a^6. Metathorax with large ridge-like crest ..... ACACHMENA, p. 589.
b^6. Metathorax with slight spreading crest ..... PSEUDELYDNA, p. 522.
c^6. Metathorax without crest.
a^7. Fore wing with the areole long.
a^8. Fore wing long and narrow, vein 6 from the areole ..... AITETA, p. 526.
b^8. Fore wing triangular, vein 6 from the cell.
a^9. Palpi with the 3rd joint long and somewhat dilated at extremity ..... MAURILIA, p. 570.
b^9. Palpi with the 3rd joint short or moderate and not dilated at extremity.
a^{10}. Fore wing with the apex rounded; hind wing with veins 3, 4 stalked.
a^{11}. Palpi with the 3rd joint moderate ..... VIZAGA, p. 567.
b^{11}. Palpi with the 3rd joint short ..... MACEDA, p. 568.
b^{10}. Fore wing with the apex somewhat produced and acute; hind wing with veins 3, 4 rarely stalked.
a^{11}. Hind wing with veins 3, 4 and 6, 7 approximated for a short distance ... CAREADES, p. 536.
b. Hind wing with veins 3, 4 and 6, 7 not approximated, 3, 4 rarely stalked ..... CAREA, p. 542.
b^7. Fore wing with the areole short.
a^8. Palpi downcurved and rostriform ..... TOPADESA, p. 476.
b^8. Palpi upturned ..... NEGETA, p. 624.
b^3. Abdomen with dorsal crest at base only.
a^4. Fore wing with the termen excised below apex and above tornus and excurved at middle ..... ACRIPIA, p. 590.
b^4. Fore wing with the termen not excised below apex and above tornus.
a^5. Hind wing with the termen produced to a lobe at middle ..... COSSEDIA, p. 479.
b^5. Hind wing with the termen evenly curved.
a^6. Tibiæ fringed with long hair; fore wing with the termen excurved ..... BESSARA, p. 585.
b^6. Tibiæ smoothly scaled.
a^7. Fore wing with the termen straight; palpi not tufted with long hair behind ..... ORTHOCRASPIS, p. 586.

b^7. Fore wing with the termen evenly curved.
a^8. Palpi porrect, the 2nd joint fringed with hair above and below ..... ARIOLA, p. 516.
b^8. Palpi upturned.
a^9. Palpi of male without tuft of hair behind, the 3rd joint very long..... PARACRAMA, p. 520.
b^9. Palpi of male tufted with long hair behind, the 3rd joint moderate ..... LOPHOCRAMA, p. 521.
c^3. Abdomen without crests.
a^4. Fore wing with the inner margin highly arched ..... PTEROGONIA, p. 646.
b. Fore wing with the inner margin not highly arched.
a^5. Thorax with slight ridge-like crest; fore wing with the areole long, vein 6 from it ..... SPHINGIFORMA, p. 524.
b^5. Thorax without crest; fore wing with vein 6 from cell.
a^6. Fore wing with the areole long. CHURIA, p. 593.
b^6. Fore wing with the areole short.
a^7. Palpi with the 3rd joint very long and dilated at extremity ..... PARACAREA, p. 566.
b^7. Palpi with the 3rd joint moderate and not dilated ... SETOCTENA, p. 650.
c^1. Hind wing with vein 5 from below middle of discocellulars.
a^2. Palpi with the 2nd joint reaching to well above vertex of head, the 3rd about twice the length of 2nd and dilated at extremity ..... CACYPARIS, p. 461.
b^2. Palpi with the 2nd joint reaching to vertex of head, the 3rd moderate.
a^3. Hind wing with veins 3, 4 stalked, 8 anastomosing with the cell to middle ..... CERALA, p. 489.
b^3. Hind wing with veins 3, 4 from cell, 8 anastomosing with the cell near base only ..... ARMACTICA, p. 663.

Genus **HYPOSCOTA**, nov.

Type, *H. læta*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and slenderly scaled, the 3rd about twice the length of 2nd and somewhat dilated at extremity; frons smooth; eyes large, round; antennæ of male with fascicles of very long cilia; thorax clothed with scales and hair mixed, the metathorax with depressed crest; fore and mid tibiæ slightly fringed with hair; abdomen without crests; male with lateral tufts of long hair from before and behind the stigmata. Fore wing with the apex rectangular, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from just below upper angle; 7 from angle; 8, 9, 10 stalked, 9 from just before apex; 11 from cell. Hind wing with veins 3, 4 stalked; 5 fully developed from above angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only; male with the termen excised from apex to vein 4 where it is produced to a point, then almost straight to tornus, a patch of black androconia below lower angle of cell on underside, female with the termen evenly curved.

6805. Hyposcota læta.

Ballatha læta, Wlk. xxxiv. 1215 (1865); Hmpsn. Moths Ind. ii. p. 127; Kirby, Cat. Lep. Het. p. 284.
Tortrix fimbriana, Wlk. Char. Lep. Het. p. 101 (1869).

♂. Head and thorax purple-brown mixed with olive-grey; palpi grey, yellow behind; antennæ brown, orange at base and with orange bar between them; tegulæ with metallic blue-black spots defined by orange; metathorax with the crest blackish; pectus and legs white, the tibiæ and tarsi yellow in front, the latter ringed with white, the fore tibiæ with greenish grey band; abdomen orange, the extremity black. Fore wing pale purple-red mixed with grey-white, the apical area blue-grey suffused with yellow; small blackish spots at middle of cell and on discocellulars; antemedial line fuscous, oblique, and hardly traceable from costa to cell, more

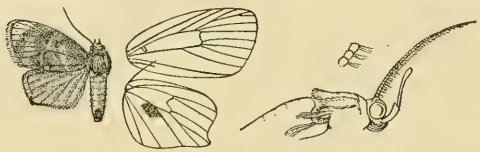


Fig. 167.—*Hyposcota læta*, ♂. ½.

distinct, inwardly oblique and defined on inner side by whitish below the cell; postmedial line very indistinct fuscous and oblique from costa to vein 5, more distinct, inwardly oblique and defined on outer side by whitish followed by a fuscous shade from vein 3 to inner margin; cilia blue-grey at base, yellow at tips to vein 2, then white. Hind wing golden yellow, the cilia black at the produced part of termen between veins 4 and 2. Underside of fore wing black, the costal area yellow tinged with fuscous, the apical area yellow, slight yellow streaks in terminal part of submedian fold and on vein 1; hind wing with the patch of androconia black.

♀. Hind wing wholly golden yellow.

Hab. Assam, Khásis, 1 ♂, 2 ♀ type; Burma, Moulmein (*Clerk*), 1 ♀. *Exp.* 24 millim.

Genus CACYPARIS.

	Type.
Cacyparis, Wlk. xxvi. 1572 (1862)	*insolitata.*
Ballatha, Wlk. xxxiv. 1214 (1865)	*insolitata.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to above vertex of head and moderately scaled, the 3rd about twice length of 2nd, slender, dilated at extremity; frons smooth; eyes large, round; antennæ of male with long cilia; thorax clothed with scales and with some hair and without crests; build slender; fore and mid tibiæ slightly fringed with hair; abdomen without crests, elongate. Fore wing broad, the apex rounded, the termen evenly curved and not crenulate, a rounded boss of scales at middle of inner margin; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a small areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with curved white band from middle of costa to termen below middle.
  a. Hind wing wholly orange-yellow ..... *hilaria.*
  b. Hind wing pale yellow with brown suffusion on termen from below apex to vein 4 ..... *elegans.*
B. Fore wing without curved white band from middle of costa to termen.
  a. Hind wing wholly yellow ..... *ceira.*
  b. Hind wing of male with brown patch on termen from below apex to vein 4 ..... *melanolitha.*
  c. Hind wing in both sexes with brown suffusion on inner area extending on terminal area to vein 6 and leaving some yellow on termen towards tornus ..... *insolitata.*
  d. Hind wing in male wholly suffused with brown, in female yellow with brown patch on termen from below apex to vein 4 ..... *cyclops.*
  e. Hind wing of female wholly brown ..... *tenuipalpis.*

*6806. Cacyparis hilaria.

Phalæna hilaria, Cram. Pap. Exot. ii. p. 26, pl. 113. f. F (1779).

Head and thorax grey-brown suffused with silvery scales; pectus, legs, and abdomen orange-yellow. Fore wing grey irrorated with dark brown; a rather narrow curved white band from middle of costa to termen below middle, defined above and below by olive suffusion; subapical ocellus black with yellow annulus. Hind wing orange-yellow. Underside orange-yellow; fore wing with a curved subapical fuscous brown band.

Hab. ? Amboina. *Exp.* 40 millim. This species is unknown to me, the locality given by Cramer is Surinam.

6807. Cacyparis elegans. (Plate CLXXXVI. fig. 16.)

Ballatka elegans, Butl. A. M. N. H. (5) xix. p. 439 (1887); Kirby, Cat. Lep. Het. p. 284.

♀. Head and thorax grey-brown suffused with silvery scales, the tegulæ pale olive; palpi, pectus, legs, and abdomen yellow. Fore wing grey-white thickly irrorated with dark brown, the costal area pale olive-brown, the grey extending almost to costa on postmedial area; some silvery scales on basal area; a pale olive patch at middle of inner margin with some silvery scales before and beyond it and a boss of blue-black scales on the margin; a broad downcurved creamy white fascia from middle of inner margin to termen where it extends from discal fold to tornus, a silvery striga on its inner edge from costa and a small discoidal silvery spot on its outer edge with another above it below the costa; a subapical yellow ocellus with black centre with a yellow streak on it, its inner edge defined by silver; cilia olive-brown suffused with silver. Hind wing yellow; a brown shade just before termen from below costa to vein 4. Underside of fore wing yellow with a broad fuscous brown post-medial band from below costa to vein 3.

Hab. Solomon Is., Alu (*Woodford*), 1 ♀ type. *Exp.* 44 millim.

6808. Cacyparis ceira. (Plate CLXXXVI. fig. 17.)

Cacyparis ceira, Swinh. A. M. N. H. (7) viii. p. 18 (1901).

♀. Head and thorax olive-brown irrorated with silvery scales; palpi yellow in front; pectus, legs, and abdomen yellow. Fore wing olive-brown suffused with grey and thickly irrorated with dark brown except on costal area, the grey extending to costa on post-medial area; the basal area irrorated with silver except towards costa; an oblique antemedial line of raised silvery scales from costa to median nervure; a boss of raised blue-black scales at middle of inner margin, defined by yellowish, with some silver scales before it and a curved band of silver scales beyond it from submedian fold to inner margin; a silvery discoidal spot with a spot beyond it in discal fold and another above it below costa; a subapical yellow ocellus with black centre, its lower part bisected by a yellow streak, an oblique line of silver scales before it from costa; a terminal series of small triangular silver spots; cilia silvery. Hind wing wholly yellow. Underside of fore wing yellow with a fuscous brown patch from below costa beyond middle to submedian fold near termen where it ends in a point.

Hab. Gilolo, 1 ♀ type. *Exp.* 40 millim.

6809. Cacyparis melanolitha. (Plate CLXXXVI. fig. 18.)

Cacyparis melanolitha, Turner, P. Linn. Soc. N. S. W. xxxiv. p. 344 (1909).

♂. Head and thorax red-brown irrorated with silvery scales, the metathorax with fuscous patch; palpi, pectus, legs, and abdomen orange-yellow. Fore wing with the basal area red-brown to costa before middle and to middle of inner margin, sparsely irrorated with silvery scales and with its outer edge defined by some silvery scales; a boss of blue-black scales at middle of inner margin; the rest of wing pale red-brown suffused with grey and irrorated with dark brown except at middle and apical part of costal area and on terminal area from discal fold to tornus; an oblique silvery striga from costa beyond middle, a spot at upper angle of cell, and a spot in discal fold beyond the cell; an elliptical yellow subapical ocellus with black centre bisected by a yellow streak; cilia suffused with silver. Hind wing orange-yellow; a fuscous black patch on terminal area from just below apex to vein 4. Underside orange-yellow; fore wing with oblique fuscous black subterminal patch from below costa to vein 3.

Hab. Queensland, Kuranda (*Dodd*), 2 ♂. *Exp.* 30–34 millim.

6810. Cacyparis insolitata.

Cacyparis insolitata, Wlk. xxvi. 1572 (1862); Moore, Lep. Ceyl. iii. p. 441, pl. 198. ff. 5, 5 *a*; Hmpsn. Moths Ind. ii. p. 126; Kirby, Cat. Lep. Het. p. 284.

Ballatha atrotumens, Wlk. xxxiv. 1215 (1865).

Head and thorax brown irrorated with silvery scales; palpi with the 1st and 2nd joints yellow; pectus and legs yellow, the

fore femora above and the base of fore and mid tibiæ brown; abdomen yellow. Fore wing ochreous brown, the medial area except towards costa and inner margin, the postmedial area to below discal fold, and the terminal area near discal fold and towards inner margin grey irrorated with dark scales; the base and antemedial area except towards costa irrorated with silvery scales; antemedial line formed of raised silvery scales, ill-defined and interrupted; a rounded boss of blue-black scales at middle of inner margin, on a yellowish patch; an oblique striga of raised silvery scales from costa above end of cell and a striga on upper discocellular; postmedial line formed by raised silvery scales, very oblique from costa to vein 6, then diffused and more or less interrupted from discal fold nearer the cell to inner margin; an elliptical subapical yellow

Fig. 168.—*Cacyparis insolitata*, ♂. ½.

ocellus with black centre bisected by a yellow streak just beyond the angle of the postmedial line; cilia brown suffused with silvery scales. Hind wing yellow, the inner area suffused with brown, extending on terminal area up to vein 6 where it becomes blackish and leaving more or less yellow on termen between vein 3 and tornus. Underside yellow; fore wing with broad diffused fuscous brown subterminal band from below costa to below vein 3; hind wing with slight fuscous subterminal streak in discal fold.

Hab. "India," 1 ♀ type; Madras, Nilgris (*Hampson*), 1 ♂; Ceylon (*Lindesay, Yerbury*), 1 ♂, 7 ♀ type *atrotumens*. *Exp.* 32–42 millim.

6811. Cacyparis cyclops. (Plate CLXXXVI. fig. 19.)

Cacyparis cyclops, Hmpsn. A. M. N. H. (7) xvi. p. 604 (1905).

♂. Head and thorax olive-brown mostly suffused with brilliant silver; palpi and legs yellowish; abdomen reddish brown, the extremity and ventral surface yellow. Fore wing grey thickly irrorated and striated with fuscous, the costal area to middle and at apex and the middle of inner margin olive-brown; brilliant silver irroration from base of costa along inner margin to middle where there is a boss of black scales suffused with silver with a silver point beyond it; an oblique silver line from costa before middle to median nervure; a silver striga from middle of costa and boss of silver scales in upper angle of cell; a round blue-black subapical ocellus defined by a yellow annulus and with minute yellow streak in centre, some silver before the ocellus; the termen pale yellow-brown

with a maculate silver line on termen and a small fuscous patch above tornus. Hind wing pale brown suffused with fuscous, the costal area ochreous to near apex. Underside ochreous; fore wing with broad subterminal band of fuscous suffusion not reaching costa or inner margin.

♀. Abdomen and hind wing ochreous yellow, the latter with some fuscous suffusion on basal inner area and a large subapical patch.

Hab. Solomon Is., Guadalcanar I. (*Meek*), 1 ♂, 1 ♀ type, Isabel I. (*Meek*), 1 ♂, 1 ♀, Rendover I. (*Meek*), 1 ♂. *Exp.* 40 millim.

*6812. Cacyparis tenuipalpis.

Epizeuxis tenuipalpis, Snell. Tijd. v. Ent. xxiii. p. 130 (1880), and xxiv. p. 68, pl. 7. f. 1; Kirby, Cat. Lep. Het. p. 284.

Head, thorax, and abdomen grey-brown; pectus, legs, and ventral surface of abdomen yellowish. Fore wing with the basal half reddish brown with some yellow suffusion below costa, in cell, and at base of inner margin; some silvery blue suffusion on basal half of inner area and a rounded boss of blue-black scales at middle of inner margin; the terminal half of wing ochreous brown, with some silvery blue scales on the outer edge of the dark area towards costa and an inverted V-shaped postmedial mark from below costa to discal fold; an elliptical yellow ocellus with black centre bisected by a yellow streak below apex. Hind wing dark brown. Underside of fore wing whitish suffused with brown, a diffused dark shade beyond the cell from below costa to vein 2, its outer edge curved and the veins on it pale; hind wing whitish, the costal area yellow.

Hab. Celebes, Lokka, Bankala, ♂ in Coll. Druce. *Exp.* 40 millim.

Genus **SINNA**.

	Type.
Sinna, Wlk. xxvii. p. 641 (1865)	*calospila.*
Teinopyga, Feld. Reis. Nov. p. 9 (1874), non descr.	*extrema.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to middle of frons and moderately fringed with hair in front, the 3rd long; frons smooth; eyes large, round; antennæ of male ciliated; build slender; thorax clothed with hair and scales mixed and without crests; tibiæ smoothly scaled; abdomen without crests, long. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 and 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the markings crimson.
  a. Fore wing suffused with black except at base and apex ... *atrifusa.*
  b. Fore wing not suffused with black.
    a^1. Fore wing with the bands black towards costa, a postmedial black streak on vein 3 ... *floralis.*
    b^1. Fore wing with the bands not black towards costa and without black streak on vein 3.
      a^2. Hind wing of male white ... *dohertyi.*
      b^2. Hind wing of male yellow ... *calospila.*
B. Fore wing with the markings yellow ... *extrema.*

6813. **Sinna atrifusa.** (Plate CLXXXVI. fig. 20.)

Sinna atrifusa, Hmpsn. A. M. N. H. (7) xvi. p. 602 (1905).

♂. Head and thorax white; antennæ brown; tegulæ and shoulders with small fuscous spots with some crimson scales on them; abdomen white dorsally suffused with fuscous except at base leaving whitish segmental lines and dorsal streak. Fore wing black-brown; an oblique white fascia from base of costa along inner margin to before middle; the costal edge white expanding into a slight patch just before middle; an almost obsolete oblique crimson fascia from below costa near base and thence above vein 1 to near termen joined by traces of medial, postmedial, and subterminal crimson bands; an apical yellowish white patch bounded on inner side by an obliquely curved black band from just below costa to near termen; the termen narrowly yellowish white to submedian fold. Hind wing pale ochreous yellow, the costal area whiter. Underside pale ochreous yellow, the fore wing tinged with fuscous except on apical area.

Hab. Java, Arjuno, 3000′ (*Doherty*), 1 ♂ type. *Exp.* 40 millim.

6814. **Sinna floralis.** (Plate CLXXXVI. fig. 21.)

Sinna floralis, Hmpsn. A. M. N. H. (7) xvi. p. 602 (1905).

Head and thorax bright yellow; 3rd joint of palpi and antennæ blackish; brilliant crimson stripes on back of head and tegulæ, on dorsum of thorax and obliquely from base of fore wing across patagia to metathorax; pectus, legs, and abdomen white, the last with broad black-brown band on ventral surface of penultimate segment, the extremity blackish. Fore wing whitish suffused with yellow, the apical area from costa beyond middle to above tornus deep golden yellow; three quadrate black spots on basal half of costa with brilliant crimson bands arising from them, oblique and not reaching inner margin but bifurcating and uniting to form reticulations in and below cell enclosing three irregular patches of the ground colour and a point at lower angle of cell; an oblique black fascia on medial part of vein 3; a black spot at apex and a curved series of three spots from costa before apex to termen above middle; a black bar on termen at tornus. Hind wing nearly pure white. Underside white; fore wing with oblique blackish bar from middle of costa expanding into an elliptical discoidal patch, the spots on terminal area as above.

Hab. Penang (*S. S. Flower*), 1 ♂ type. *Exp.* 40 millim.

Subsp. 1. *Sinna dohertyi*, Hmpsn. Moths Ind. ii. p. 129 ♀ (nec ♂).

♀. Thorax white with hardly any yellow tinge; fore wing white with hardly any yellow to beyond the crimson markings and with the black markings on apical area placed on a white patch, the black on costal part of the crimson bands much reduced.

Assam, Digboi (*Brunt*), in Coll. Rothschild, Margharita.

6815. Sinna dohertyi.

Sinna dohertyi, Elwes, P. Z. S. 1890, p. 400, pl. 33. f. 5; Hmpsn. Moths Ind. ii. p. 129; Kirby, Cat. Lep. Het. p. 283.

♀. Head and thorax white; palpi with brown mark at base of 2nd joint behind and brown tips; antennæ brownish except towards base; tegulæ, patagia, and prothorax with yellow patches, the dorsum of thorax with V-shaped yellow mark; fore femora above and mid femora at extremity black, the fore tibiæ with streak on inner side and the extremities of tarsi black; abdomen white with subdorsal fuscous marks on terminal segments. Fore wing white, the area from near base to beyond the cell and down to submedian fold deep crimson with white spots and patches on it edged with fuscous, the crimson turning to yellowish at costa and a triangular yellow patch with a white spot on it on inner medial area; a minute black point at base of costa and the costal edge blackish on basal area; a white subbasal bar from costa and spot above vein 1, followed by an antemedial patch in and below the cell; an oblique medial patch from costa, small spot on median nervure and spot on the inner medial area; two small discoidal spots, two small spots beyond the angles of cell, and a larger spot below extremity of cell; an oblique white bar from costa beyond the crimson area to vein 7, a small spot on vein 6 and a comma-shaped mark below the discal fold, its tail running inwards on vein 2 to near the spot below end of cell, these markings followed by a yellow band oblique from costa to discal fold near termen, then subterminal to submedian fold where the yellow terminates; the apical area and termen white with a curved black band on apical area from costa to discal fold near termen; a black spot at apex and four rather bar-shaped spots on termen between discal fold and tornus; cilia tinged with fuscous at apex and tornus. Hind wing white. Underside of fore wing with the crimson replaced by fuscous in parts.

♀. Fore wing with the markings at middle of inner area crimson, the subapical band divided into two spots, thorax marked with crimson.

Hab. Assam, Khásis, 2 ♂, Naga Hills, type † in Coll. Rothschild. *Exp.* 34–38 millim.

6816. Sinna calospila.

Sinna calospila, Wlk. xxxii. 642 (1865); Kirby, Cat. Lep. Het. p. 283.
Teinopyga hæmacta, Snell. Tijd. v. Ent. xxviii. p. 1, pl. 1. f. 1 (1885).

♂. Head and thorax white; antennæ brownish; pink streaks above the eyes; tegulæ, patagia, and prothorax with pink patches, the dorsum of thorax with V-shaped brownish mark tinged with pink; legs tinged with ochreous; abdomen ochreous with subdorsal brownish patches. Fore wing yellow, the base and the spots between the pink markings whitish; an oblique pink band from just below costa near base to vein 1 before middle, defined by black to just below the cell, its extremity confluent in submedian fold

with the pink patch on medial area which extends from subcostal nervure to submedian fold and before the postmedial band to just above inner margin, a yellow patch on it at middle of cell confluent with the costal yellow area and a spot below the cell, two small

Fig. 169.—*Sinna calospila*, ♂. ½.

discoidal spots, two spots beyond the cell and one below its extremity; a whitish postmedial band, oblique from costa to discal fold and at vein 2 running inwards to the spot below end of cell, defined on outer side by an oblique pink band from below costa to discal fold and a band from above vein 3 to below submedian fold; a curved black bar on apical area from costa to below vein 7 near termen, a large spot at apex, a bar on termen below discal fold and another above tornus. Hind wing ochreous yellow. Underside of both wings ochreous yellow.

♀. Hind wing and underside white.

Ab. 1. Fore wing with the white markings defined by rather diffused black on the pink area.

Hab. Sumatra, Deli; Java (*Horsfield*), 2 ♂ type, Mega-Mendoeng, Tosari (*Cockayne*), 1 ♀. *Exp.* 40 millim.

6817. Sinna extrema.

Deiopeia extrema, Wlk. ii. 573 (1854); Staud. Cat. Lep. pal. p. 362; Kirby, Cat. Lep. Het. p. 283.
Teinopyga reticularis, Feld. Reis. Nov. pl. 106. f. 18 (1874).
Sinna fentoni, Butl. Trans. Ent Soc. 1881, p. 8; Kirby, Cat. Lep. Het. p. 283.
Sinna clara, Butl. Trans. Ent. Soc. 1881, p. 8; Kirby, Cat. Lep. Het. p. 283.
Sinna ornatissima, Alph. Rom. Mém. ix. p. 131, pl. 9. f. 9 (1897).
Sinna unicolor, Wileman, Trans. Ent. Soc. 1911, p. 237, pl. 31. f. 25.

Head and thorax white; palpi brownish at tips; antennæ brownish except towards base; tegulæ, patagia, pro- and metathorax with orange patches; fore femora tinged with brown above; abdomen white, sometimes with fuscous subbasal patches on terminal segments. Fore wing orange; a white fascia from base of costa to inner margin before middle, with sinuous upper edge; a subbasal white spot on costa and spot further from base in and below the cell; an oblique antemedial white bar from costa, spot on median nervure, and patch on inner area somewhat hooked on inner side above; two discoidal spots, spots beyond upper and lower angles of cell and a spot below lower angle; an oblique wedge-shaped post-

medial patch from costa, point on vein 6, curved mark between discal fold and vein 2 with its lower extremity more or less forked, and a conical spot on inner margin confluent with the white on termen; a large apical white patch and narrow terminal band with waved inner edge, subterminal black spots on costa and below vein 7, the latter oblique, and a terminal series of five spots, the spot at apex larger and the spot above tornus bar-shaped. Hind wing white or faintly tinged with brown.

Ab. 1. *fentoni*. Fore wing pale yellow, the white markings much more extensive, the yellow reduced to narrow meandering bands, the postmedial markings forming an entire band, the black marks on terminal area reduced.

Ab. 2. *clara*. Fore wing with the yellow still paler and more reduced, the terminal area quite or almost entirely white, the black entirely or partially absent.

Ab. 3. *unicolora*. Thorax and fore wing entirely white.

Hab. E. Siberia, Ussuri, 1 ♂; Japan, Yesso (*Pryer*), 1 ♂, Hakodaté (*Leech*), 1 ♂, 3 ♀, Tokio (*Fenton*), 2 ♂, 1 ♀, types *fentoni* and *clara*, Yokohama (*Pryer*), 2 ♂, 3 ♀; C. China, Shanghai (*Fortune*), 3 ♀ type, Ichang (*Mrs. Pratt*), 1 ♀; W. China, Chang-yang (*Pratt*), 1 ♂, 1 ♀, Omei-shan, 2 ♀, Washan (*Pratt*), 1 ♂, Wa-ssu-kow, 1 ♀, Moupin (*Kricheldorf*), 1 ♀. *Exp.* 32–40 millim.

Genus **GABALA**.

	Type.
Gabala, Wlk. xxxiv. 1220 (1865)	*polyspilalis*.

Proboscis rather small; palpi obliquely upturned, the 3rd joint reaching to far above vertex of head and with tuft of hair above at extremity, the 3rd very long with tuft of hair near extremity; frons smooth, with ridge of scales above; eyes large, round; antennæ of male almost simple; thorax clothed almost entirely with scales, the metathorax with hump-like crest; tibiæ smoothly scaled; abdomen with dorsal crests on two basal segments; the male with lateral fans of large scales covering the stigmata. Fore wing with the costa highly arched, the apex somewhat produced and acute, the termen evenly curved and not crenulate, veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with the termen almost straight to vein 2, then excised to tornus; veins 3 and 4 shortly stalked; 5 fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell to middle; retinaculum of male a tuft of hair from below median nervure.

Sect. I. Abdomen of male with the lateral fans of scales large; hind wing with the termen very strongly excised below vein 2; male with fringes of long hair below the cell and vein 2 and on inner area on upperside.

A. Fore wing with large triangular antemedial white patch ... *margarita*.
B. Fore wing with numerous small white spots on basal area . *polyspilalis*.

*6818. **Gabala margarita**. (Plate CLXXXVI. fig. 22.)

Gabala margarita, Beth.-Baker, Nov. Zool. xv. p. 198 (1908).

♀. Head and tegulæ yellow mixed with crimson, the palpi red-brown with the 1st joint yellow and white, the tegulæ with silvery

white spots; thorax red-brown mixed with crimson and yellow; pectus and legs white, the fore tibiæ yellow; abdomen white, the basal crest yellow and crimson. Fore wing with the costal area yellow, the basal area yellow suffused with crimson and with a purple-brown fascia below costa and a large diamond-shaped antemedial silvery white patch extending from subcostal nervure to inner margin, bounded on outer side by a crimson line with an oblique yellow line beyond it from the costal area to median nervure; medial area purple-brown emitting angles to just below costa beyond the antemedial and before the postmedial line; an oblique silvery white postmedial spot defined by crimson below the costa, the punctiform black postmedial line arising from its lower edge towards which it is indistinctly double, slightly incurved at discal fold and bent inwards below vein 4; subterminal line blackish, straight, not extending to costa, a small silvery white wedge-shaped mark defined by crimson before it below the costa, a small spot below vein 6 and a faint oblique yellowish mark in submedian interspace; the termen and cilia yellow. Hind wing with the basal half white, the terminal half yellow faintly tinged with crimson. Underside of fore wing yellowish white with the antemedial white patch showing through.

Hab. Br. N. Guinea, Mt. Kebea (*Pratt*), type † ♀ in Coll. Bethune-Baker. *Exp.* 32 millim.

6819. Gabala polyspilalis.

Gabala polyspilalis, Wlk. xxxiv. 1221 (1865); Hmpsn. Moths Ind. ii. p. 136.

♂. Head and thorax ochreous white mixed with blood-red, the vertex of head, tegulæ at middle and sides and patagia with silvery white patches defined by red; palpi white at base; pectus and legs white, the fore and mid tibiæ with red streaks at base, the fore tarsi slightly ringed with red; abdomen ochreous yellow, the crests

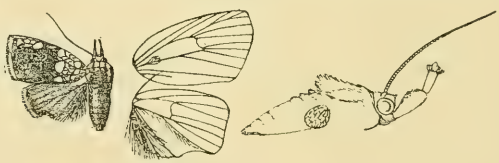


Fig. 170.—*Gabala polyspilalis*, ♂. ½.

red, the ventral surface white. Fore wing red-brown striated with whitish, the terminal area below vein 3 redder; the basal area with numerous small silvery white spots defined by red and larger subbasal spots below costa and cell and antemedial spots below costa, in and below cell and above inner margin; a small silvery white spot defined by red below middle of costa; the

extremity of median nervure, discocellulars and bases of veins 3, 4 pale flesh-colour; the postmedial area with slight pale V-shaped marks between veins 7 and 3 with some black irroration beyond them, and an oblique elliptical silvery white spot defined by red below costa with two small spots and one below them beyond it followed by a subapical spot, with small V-shaped mark below it; subterminal white points between veins 5 and 2 with a fine dentate line before them; cilia yellow intersected with red-brown at discal fold and red-brown at tornus. Hind wing yellow, the termen red-brown from apex to vein 2; the underside pale yellow.

Ab. 1. Hind wing entirely suffused with red-brown above.—Nilgiris.

♀. Hind wing with the basal and costal areas whitish and with more rufous suffusion on terminal area.

Hab. "India" (*Mrs. Hamilton*), 1 ♂, 1 ♀ type; Sikhim (*Dudgeon*), 1 ♀; Bombay (*Leith*, *Jackson*), 3 ♂, Khandála (*Swinhoe*), 1 ♀; Madras, Nilgiris (*Hampson*), 1 ♂. *Exp.* 26 millim.

Sect. II. Abdomen of male with the lateral fans of scales much smaller with a tuft of long hair from below them; hind wing with the termen much less excised below vein 2 and without fringes of hair on upper side.

6820. Gabala argentata.

Gabala argentata, Butl. Ill. Het. B.M. ii. p. 56, pl. 39. f. 3 (1878).

Head and thorax bright rufous, the vertex of head with silvery white patch defined by blood-red, the tegulæ at dorsum and sides, the patagia, the pro- and mesothorax with paired silvery white spots defined by blood-red; palpi white towards base; pectus and legs white, the fore and mid tibiæ tinged with rufous; abdomen white dorsally slightly tinged with rufous, the crests rufous.

Fig. 171.—*Gabala argentata*, ♂. ½.

Fore wing bright rufous; the basal area with numerous silvery white spots defined by blood-red, with larger subbasal spots below costa and cell and antemedial spots on and below costa, in and below cell and above inner margin, the spot below the cell produced above to an angled mark before the spot in cell; a pale striga on discocellulars; traces of a double dark postmedial waved line, arising at

vein 6, incurved at discal fold, below vein 4 incurved to lower angle of cell; the postmedial area with some minute black spots in the interspaces between veins 6 and 3 and three slight pale spots on inner area; two obliquely-placed silvery white spots defined by blood-red below postmedial part of costa with a point before the lower spot, followed by some reticulate white and red markings, then a subapical spot; three white subterminal points between veins 5 and 2 with a dentate line before them, defined by red; a dark terminal line; cilia rufous, brownish towards tornus. Hind wing white tinged with yellow beyond the cell, the termen slightly tinged with rufous from apex to vein 2. Underside of fore wing white.

Ab. 1. Ground-colour of thorax and fore wing suffused with fuscous brown.

Ab. 2. Thorax and fore wing with the spots suffused with rufous.

Ab. 3. Thorax and fore wing with the spots pale yellow, the latter with the costa towards apex and the cilia reddish yellow.

Hab. Japan, Nagasáki (*Leech*), 1 ♂, 1 ♀, Fushiki (*Leech*), 2 ♀, Satsuma (*Leech*), 1 ♀, Tokio (*Fenton*), 1 ♀, Yokohama (*Jonas, Pryer*), 1 ♂, 6 ♀ type; Corea, Gensan (*Ito*), 1 ♂, 2 ♀; Hong-kong (*J. J. Walker*), 1 ♀; Punjab, Dharmsála (*Hocking*), 1 ♀; Assam (*Badgley*), 1 ♂; Burma, Hsipaw (*Watson*), 1 ♀. *Exp.* 26–30 millim.

Genus SIGLOPHORA.

Type.

Siglophora, Butl. P. Z. S. 1892, p. 123 ..... *bella.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head, the 3rd long; frons smooth, with ridge of scales above; eyes large, round; antennæ of male somewhat laminate and almost simple; thorax clothed with scales and hair, the metathorax with depressed crest; fore and mid tibiæ moderately fringed with hair, the hind tibiæ smoothly scaled, the spurs very long; abdomen with small crests on two basal segments. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked from before angle; 11 from cell. Hind wing with the termen excurved at middle and truncate towards tornus; veins 3 and 4 strongly stalked; 5 from angle except in the male of *S. bella*; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

Sect. I. Vertex of head with a ridge of metallic scales between antennæ.

A. Fore wing of male with large glandular swelling at middle of costa on underside with tufts of curled hair round it on upperside, the neuration at upper angle of cell distorted.

6821. Siglophora ferreilutea.

Siglophora ferreilutea, Hmpsn. Trans. Ent. Soc. 1895, p. 296; id. Moths Ind. iv. p. 502, ♀.

Siglophora ferruginea, Leech, Trans. Ent. Soc. 1899, p. 206, ♂.

♂. Head yellow with a ridge of red scales with metallic tips between antennæ; palpi yellow and red; frons white; tegulæ

yellow with blood-red points; thorax yellow mixed with blood-red; pectus and legs white, the fore tibiæ tinged with red-brown; abdomen ochreous, the basal crest yellow and blood-red, the ventral surface white. Fore wing bright yellow; a point at base and waved subbasal blood-red line from costa to vein 1; an antemedial band with waved edges, filled in with blood-red suffusion; a conical patch at middle of inner margin with yellow spot on it; an oblique diffused band from middle of costa to lower angle of cell where it becomes confluent with the red of terminal area, its outer edge waved; the terminal area red suffused with fuscous, its inner edge curved from termen below apex to inner margin at postmedial line

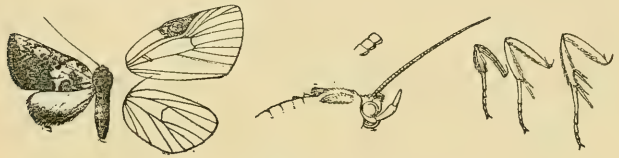


Fig. 172.—*Siglophora ferreilutea*, ♂. ½.

leaving the costal area yellow; postmedial line red, oblique and dentate from costa to vein 6, angled inwards at discal fold and outwards at vein 4, then strongly incurved, slightly defined on inner side by yellow on the red area, a similar red line beyond it; subterminal line yellow defined by red, minutely dentate, excurved at middle and angled inwards at discal and submedian folds; the veins of terminal area slightly streaked with red. Hind wing with the base and costal area white, the rest of wing yellow, the terminal area suffused with rufous from vein 6 to tornus; cilia rufous except at apex. Underside white; fore wing with the costa towards base and the terminal area suffused with rufous, the latter narrowing to apex.

♀. Fore wing without the oblique band from middle of costa to lower angle of cell, the medial line, discoidal line, and postmedial line separate and dentate on costal half, the postmedial line sinuous below vein 4 and the line beyond it defined by yellow on the dark area.

Hab. Japan, Kiushiu, 1 ♂ type *ferruginea*; Sikhim (*Dudgeon*), 1 ♀ type. *Exp.*, ♂ 24, ♀ 30 millim.

B. Fore wing of male normal; hind wing with the termen strongly excised at discal fold and excurved at middle, with a concave patch of ribbed androconia on the lobe on underside, the lower angle of cell much produced and vein 5 from near middle of discocellulars.

a. Fore wing with the terminal area rufous except towards costa ..... *bella*.

b. Fore wing with the terminal area yellow irrorated with brown except towards costa ..... *cymographa*.

6822. Siglophora bella.

Siglophora bella, Butl. P. Z. S. 1892, p. 124, pl. 6. f. 2.

♂. Head yellow with ridge of metallic red scales between

antennæ which are tinged with rufous; palpi white at base and suffused with brown at tips; frons white; thorax yellow with rufous markings; pectus and legs white, the fore tibiæ banded brown and yellow, the tarsi yellow with the tips brown, the mid tibiæ brown on inner side; abdomen yellow banded with red, the anal tuft purple-brown, the ventral surface white. Fore wing with the basal half and costal area to apex bright yellow, the rest of wing rufous suffused with fuscous; a rufous fascia with sinuous upper edge on base of inner margin; a waved chocolate-brown subbasal line from costa to the fascia; an antemedial chocolate-brown annulus on costa, three conjoined annuli in and below cell and two on inner area, a waved line beyond them from costa to median nervure; the dark terminal half defined on inner side by

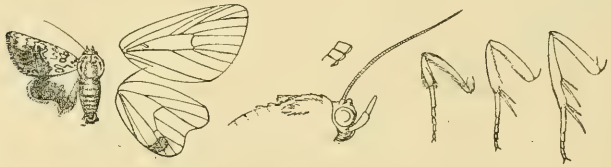


Fig. 173.—*Siglophora bella*, ♂. ½.

a minutely waved chocolate-brown medial line, the dark area extending beyond it to just below costa and enclosing a minute yellow spot; postmedial line chocolate-brown on the costal area, blackish on the dark area, oblique and dentate to vein 6, then inwardly oblique, a similar dentate line beyond it; subterminal line slight, yellow defined on inner side by black, dentate. Hind wing with the basal area semihyaline white shading to yellow, the inner margin rufous, the terminal two-thirds of wing purplish fuscous defined on inner side by rufous; the cilia rufous.

♀. Abdomen ferruginous with the basal crests yellow; fore wing with the terminal area ferruginous with hardly any fuscous suffusion, the subterminal yellow line distinct with black spots on its inner side except towards costa.

Hab. Borneo, 1 ♂, Sandakan (*Pryer*), 1 ♀ type. *Exp.* 24 millim.

6823. **Siglophora cymographa**, n. sp. (Plate CLXXXVI. fig. 23.)

♀. Head and tegulæ yellow, a ridge of metallic brown scales between antennæ; palpi white, yellowish at tips; frons white; thorax yellow mixed with brown; pectus and legs white, the tibiæ with brown mixed; abdomen dark brown, the basal crests yellow, the ventral surface white. Fore wing yellow; a fine subbasal waved dark brown line from costa to vein 1; a double dentate antemedial line enclosing minute annuli below costa and in cell; small rufous annuli above and below middle of vein 1; an irregularly dentate brown medial line, oblique from costa to lower angle

of cell, with a broad band of brown irroration between it and the similar postmedial line; the terminal area suffused with reddish brown from vein 6 to tornus; subterminal line brown, defined on inner side by yellow on the dark area, crenulate, incurved at submedian fold. Hind wing with the basal area semihyaline white with a yellowish tinge at lower angle of cell; the inner area and terminal half purple-brown. Underside of fore wing with the basal half white with antemedial brown spot on costa, the terminal half purple-brown with a white patch an apical part of costal area; hind wing with the basal half white, the terminal half purple-brown.

Hab. Borneo, Sandakan (*Pryer*), 1 ♀ type. *Exp.* 20 millim.

Sect. II. Vertex of head without ridge of metallic scales between antennæ.

A. Hind wing of male with hyaline fovea below base of costa covered by a membranous flap on underside.

6824. Siglophora sanguinolenta.

Chionomera sanguinolenta, Moore, Lep. Atk. p. 285 (1888); Hmpsn. Moths Ind. ii. p. 135; Kirby, Cat. Lep. Het. p. 284.

Head and thorax bright yellow, the back of head, tegulæ, patagia at base and tips, the pro- and metathorax with crimson spots; palpi with the 2nd joint crimson, white in front, the 3rd yellow with crimson and black mark at base in front; antennæ tinged with crimson above; pectus and legs white, the fore femora black and

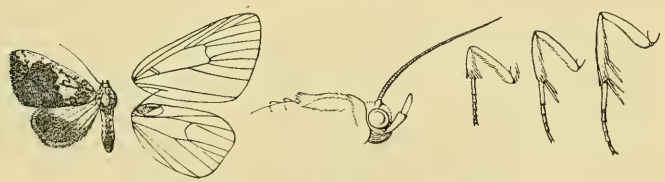


Fig. 174.—*Siglophora sanguinolenta*, ♂. ½.

crimson above, the tibiæ banded yellow and black and crimson, the tarsi yellow with the extremity black; abdomen white, dorsally suffused with brown, dark in male, the basal crests yellow, crimson and black. Fore wing with the basal half and costal area to apex bright yellow, the rest of wing greyish irrorated with black, especially in male; a crimson point at base of cell and some crimson and white on base of inner margin; an antemedial crimson annulus on costa and double waved line filled in with blackish from it to inner margin; a waved crimson medial line from below costa to median nervure, with points before and beyond it below costa and two conjoined annuli on inner area; the dark terminal area with waved edges defined by crimson; some crimson points on

the yellow costal area representing the lines; two minute yellowish postmedial points beyond the cell with a waved crimson and blackish line beyond them between veins 6 and 3; subterminal line dentate, crimson defined on inner side by blackish and with some yellow points on it above middle, incurved in submedian interspace. Hind wing with the basal half and costa white, the terminal half fuscous brown, the cilia purplish pink. Underside of fore wing with the basal half and costal area to apex white, the rest of wing brown with some white marks before middle of termen; hind wing wholly white.

Hab. W. China, Omei-shan, 1 ♀; Sikhim (*Möller*), 1 ♂, 1 ♀ type; Assam, Khásis, 1 ♂, 1 ♀. *Exp.* 24 millim.

B. Hind wing of male without fovea; palpi with tuft of hair on 2nd joint above.

6825. Siglophora hæmatica.

Siglophora hæmatica, Hmpsn, A. M. N. H. (7) xvi. p. 603 (1905).

♂. Head, thorax, and abdomen yellow suffused with red, the base of abdomen yellow with dorsal red crest. Fore wing yellow

Fig. 175.—*Siglophora hæmatica*, ♂. ½.

suffused with red, especially on terminal half, leaving yellow ante- and postmedial semicircular patches on costa and small medial and apical spots; traces of an obliquely incurved antemedial line and of waved medial and postmedial lines; a slight brownish discoidal spot; termen narrowly greyish fuscous from apex to vein 3. Hind wing with the basal half yellow, the apical half red. Underside with the red areas deeper fiery red.

Hab. Borneo, Pulo Laut (*Doherty*), 1 ♂ type. *Exp.* 22 millim.

Genus **TOPADESA**.

	Type.
Topadesa, Moore, Lep. Atk. p. 280 (1882)	*sanguinea*.

Proboscis aborted, minute; palpi rostriform, projecting about four times length of head, the 2nd joint curving upwards, then forward and downwards, moderately fringed with hair above and below, the 3rd rather long; frons smooth, with tuft of hair; eyes large, round; antennæ of male ciliated; thorax clothed with hair and scales and without crests; tibiæ smoothly scaled; abdomen with minute dorsal crests on two basal segments, the male with large corneous lobed valves from below the lateral stigmata covering the base

of ventral surface. Fore wing with the apex produced and acute, the termen excurved at middle and excised towards apex and tornus, not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a minute areole; 11 from cell. Hind wing with veins 3, 4 stalked; 5 fully developed from well above angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only; the retinaculum of male formed by a tuft of hair from below median nervure.

A. Fore wing with the outer edge of the dark area forming a hook at middle of terminal area ..... *flammans.*
B. Fore wing with the outer edge of the dark area excurved at middle of terminal area ..... *sanguinea.*

6826. Topadesa flammans, n. sp. (Plate CLXXXVI. fig. 24.)

Topadesa sanguinea, ♀, Swinh. A. M. N. H. (7) xv. p. 157 (1905).

♂. Head, tegulæ, and patagia brown, the tegulæ and patagia slightly edged with crimson; thorax crimson; palpi scarlet and yellow below, the sides of frons with some scarlet; pectus and legs white, the tibiæ and tarsi yellow, the fore tibiæ and tarsi tinged with scarlet on inner side; abdomen white dorsally tinged with brown and crimson. Fore wing brilliant scarlet slightly irrorated with yellow, the costal area, base and extremity of cell and terminal area suffused with purple; the costal edge scarlet with a small yellow patch at base defined by scarlet below, and some yellow towards apex also defined by scarlet below, the termen yellow defined on inner side by scarlet and interrupted by a dark tooth at middle; a brown antemedial line excurved below costa, then oblique and minutely waved; a small white discoidal spot defined on inner side by black; a brown postmedial line bent outwards below costa, then oblique and slightly sinuous; the inner edge of the dark terminal area defined by the slight dark subterminal line which is excurved below vein 7, at middle, and to tornus, and incurved at discal and submedian folds; cilia yellow intersected with scarlet at apex. Hind wing yellow, the apex slightly tinged with scarlet.

♀. Abdomen dorsally greyish fuscous; fore wing suffused with purplish leaden grey leaving the margins scarlet and yellow, the discal spot small and scarlet.

Ab. 1. ♂. Fore wing with the inner margin black, the costal, medial and subterminal areas largely suffused with black.

Hab. Assam, Khásis, 1 ♂, 1 ♀ type. *Exp.* 24 millim.

6827. Topadesa sanguinea.

Topadesa sanguinea, Moore, Lep. Atk. p. 280 (1882); Hmpsn. Moths Ind. ii. p. 137.

♂. Head and thorax brown mixed with some grey; palpi scarlet below with some yellow at base; metathorax with small lateral tufts of crimson hair; pectus and femora white, the tibiæ

and tarsi yellow; abdomen white dorsally tinged with brownish and crimson. Fore wing scarlet, the costal area, cell, middle of inner area and the terminal area suffused with brown and irrorated with grey, the veins slightly streaked with brown; the costal edge scarlet with a small yellow patch at base defined by scarlet below and with some yellow towards apex defined by scarlet below;

Fig. 176.—*Topadesa sanguinea*, ♂. ½.

the termen yellow defined on inner side by scarlet; traces of a brown antemedial line excurved below costa, then oblique; a round white discoidal spot; traces of a brown postmedial line, bent outwards below costa, then oblique; cilia yellow intersected with scarlet at apex. Hind wing pale yellow.

Hab. Sikhim (*Lidderdale*), 1 ♂. *Exp.* 30 millim.

Genus **CHANDICA**.

Type.

Chandica, Moore, Lep. Atk. p. 286 (1888)..... *quadripennis*.

Proboscis aborted, small; palpi upturned, the 2nd joint reaching to vertex of head, slenderly scaled, the 3rd moderate; frons smooth with ridge of hair above; eyes large, round; antennæ of male somewhat laminate and almost simple; thorax clothed with hair and scales mixed and with slight ridge-like crest; mid tibiæ fringed on both sides with long hair, the fore and mid tibiæ smoothly scaled; abdomen with small dorsal crest on basal segment. Fore wing with the costa arched near base and somewhat excised at middle; the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 9 from 10 anastomosing with 8 to form a minute areole; 11 from cell. Hind wing with the termen excised from apex to vein 3, produced to a lobe at middle, then slightly excised to tornus, the inner area long; veins 3, 4, 5 stalked; 6, 7 from upper angle of cell; 8 anastomising with the cell near base only; the upperside with fringes of hair below the cell and on inner area, the underside with the costal area clothed with long rough scales.

6828. **Chandica quadripennis.**

Chandica quadripennis, Moore, Lep. Atk. p. 286 (1888); Hmpsn. Moths Ind. ii. p. 127; Kirby, Cat. Lep. Het. p. 285.

♂. Head and tegulæ bright yellow; palpi with the 2nd joint crimson behind; frons fuscous with crimson bar above; antennæ tinged with crimson, brownish towards tips; a spot at back of head and the base of tegulæ crimson; thorax flesh-red with some fuscous at base of patagia and on dorsum; pectus and legs white,

the fore and mid tibiæ yellow with black marks at extremities, the fore tibiæ with crimson and brown mark at base; abdomen white dorsally suffused with flesh-red, the anal tuft brownish. Fore wing flesh-red; the costa with conjoined series of bright yellow spots defined below by purplish fuscous, the termen with yellow band defined on inner side by purplish fuscous, interrupted at discal fold and the yellow angled inwards at vein 5 then narrowing to a point at submedian fold; antemedial line whitish, oblique and slightly sinuous, arising from the costal fascia; postmedial

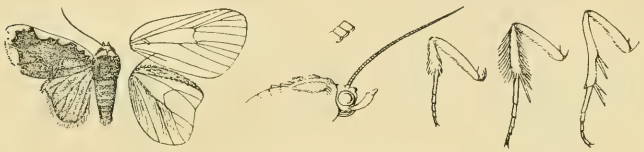


Fig. 177.—*Chandica quadripennis*, ♂. ½.

line with oblique wedge-shaped blackish mark from the costal fascia to vein 6, then whitish, oblique and dentate to submedian fold and bent outwards to inner margin; a terminal series of dark brown points from below apex to below vein 4; cilia yellow with slight brown mark at dorsal fold and some red at tornus. Hind wing whitish suffused with ochreous, the terminal area rufous with some grey at middle.

Hab. Sikhim; Borneo, 1 ♂ cotype. *Exp.* 28 millim.

Genus **COSSEDIA**.

Type.

Cossedia, Wlk. xxxiv. 1277 (1865) ..... *erateinalis*.

Proboscis aborted, small; palpi upturned, the 2nd joint reaching about to vertex of head and slenderly scaled, the 3rd short, porrect; frons smooth with slight ridge of hair above; eyes large, round; antennæ of male somewhat laminate and ciliated; thorax clothed with scales and hair mixed and without crests; tibiæ slightly fringed with hair, the inner spurs long; abdomen with dorsal crest at base only. Fore wing with the costa arched near base and slightly excised at middle, the apex somewhat produced, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 9 from 10 anastomising with 8 to form a minute areole, 7 from far beyond the areole; 11 from cell. Hind wing with the termen almost straight from apex to vein 4 where it is produced to a lobe, then excised to tornus; veins 3, 4 strongly stalked; 5 fully developed from just above angle of cell; 6 from below upper angle; 7 from angle; 8 anastomosing with the cell near base only.

Sect. I. Hind wing of male with a hyaline groove of ribbed membrane in submedian interspace and ridges of hair below the cell and on inner area.

6829. **Cossedia hyriodes**, n. sp.

♂. Head and thorax deep purplish red; palpi yellow in front; pectus and legs yellow, the fore femora and tibiæ above and base

of hind tibiæ red; abdomen red mixed with brown, the basal crest yellow, some yellow in anal tuft, the ventral surface brown, whitish at base and extremity. Fore wing purplish red-brown; a small yellow subbasal spot on costa with slight pale curved line from it to median nervure; a small triangular yellow spot at middle of costa, some black points at lower angle of cell, small spots below the angle and in submedian fold and yellow striga at inner margin; an oblique triangular yellow postmedial spot on costa conjoined to the medial spot, with oblique yellow striga below it, then a faint pale waved line, excurved to vein 3, then incurved and

Fig. 178.—*Cossedia hyriodes*, ♂. ⅔.

with some yellow striæ on it; a yellow patch on apical part of costa and two subapical points on a blackish patch; the termen and cilia yellow from below apex to vein 4, expanding into a rounded patch below vein 6 with a black point on termen and some points on the cilia; an oblique yellow subterminal striga in submedian interspace. Hind wing purplish red, the base and inner area whitish suffused with brown; a yellowish patch beyond lower angle of cell; cilia yellow, red at middle of lobe and pale towards tornus.

Hab. PHILIPPINES, Palawan, Porto Princessa (*Doherty*), 1 ♂ type. *Exp.* 16 millim.

SECT. II. Hind wing of male without hyaline groove in submedian interspace or ridges of hair below the cell and on inner area.

A. Wings purplish with the terminal area yellow; hind wing with the termen moderately lobed at veins 3, 4 ..... *semiflava.*
B. Fore wing red with triangular yellow patch on terminal area below discal fold; hind wing whitish, the terminal area red, the termen strongly lobed at veins 3, 4..... *erateinalis.*

6830. **Cossedia semiflava.** (Plate CLXXXVI. fig. 25.)

Chandica semiflava, Hmpsn. A. M. N. H. (7) xvi. p. 603 (1905).

♀. Head whitish mostly suffused with crimson; palpi in front, base of frons, and basal joint of antennæ in front white; antennæ reddish; tegulæ white edged with rufous and fuscous; patagia rufous and fuscous; thorax whitish; pectus, legs, and abdomen white; fore tibiæ crimson in front, abdomen dorsally brownish tinged with crimson except at base. Fore wing purplish red-

brown to beyond middle shading into blackish, its outer edge oblique from costa to vein 6; terminal area pale bright yellow with some crimson suffusion on edge of dark area from apex to angle of dark area and as a very ill-defined line from this angle to termen above tornus; a terminal series of minute crimson points. Hind wing with the basal half whitish tinged with purplish fuscous, the terminal area pale yellow with a faint crimson tinge on edge of basal area and on termen at apex and middle; the termen moderately lobed at veins 3, 4.

Hab. Borneo, 1 ♀ type. *Exp.* 20 millim.

*6831. Cossedia erateinalis.

Cossedia erateinalis, Wlk. xxxiv. 1277 (1865); Swinh. Cat. Het. Mus. Oxon. ii. p. 590.

♂. Head red mixed with yellow; palpi yellow, reddish at tips; tegulæ yellow, red at base; thorax red; pectus and legs white, the mid tibiæ yellow; abdomen white, the terminal half dorsally suffused with red. Fore wing brownish red; the costa yellow; a subbasal yellow striga from costa; a straight yellow medial line expanding into a triangular mark at costa; a slight yellow post-medial line expanding into a small triangular yellow mark at costa,

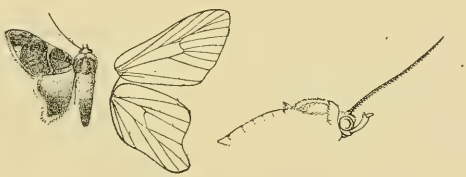


Fig. 179.—*Cossedia erateinalis*, ♂. ½.

oblique and minutely waved from discal to submedian folds, then bent outwards to inner margin near tornus; a yellow spot on costa before apex; a wedge-shaped yellow patch on termen below discal fold; cilia yellow tinged with red except at apex and middle. Hind wing white, the inner area tinged with ochreous, the terminal area suffused with brownish red; cilia yellowish white; the termen strongly lobed at veins 3, 4.

Hab. Borneo, Sarawak (*Wallace*), type † ♂ in Mus. Oxon. *Exp.* 24 millim.

Genus **LEUCOPHANERA**, nov.

Type, *L. argyrozona*.

Proboscis aborted, minute; palpi obliquely upturned, the 2nd joint reaching about to middle of frons and moderately fringed with hair in front, the 3rd moderate; frons with pointed prominence with triangular corneous plate below it and small plate below the frons; antennæ of female somewhat

laminate and almost simple; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from angle of cell; 6, 7 shortly stalked; 8 anastomosing with the cell near base only.

*6832. Leucophanera argyrozona.

Leucophanera argyrozona, de Joan. Bull. Soc. Ent. Fr. 1911, p. 117.

♀. Head and thorax silvery white; palpi except at extremity of 2nd joint and base of 3rd brown; antennæ brown; legs brown, the tibiæ and tarsi ringed with white; abdomen white tinged with brown. Fore wing silvery white; small triangular cupreous brown subbasal and antemedial spots on costa suffused with metallic silver and defined by black on outer side; an antemedial black point above vein 1; an erect medial cupreous brown band suffused with

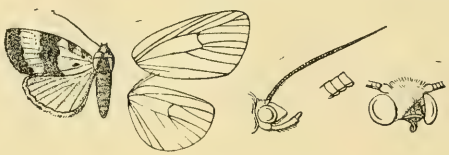


Fig. 180.—*Leucophanera argyrozona*, ♀. ¾.

metallic silver and defined by slightly sinuous black lines, a black discoidal striga on it; a subterminal series of irregular dentate black marks with a cupreous brown band suffused with metallic silver beyond them leaving the termen white with a series of small black spots. Hind wing white very faintly tinged with brown and with a terminal series of blackish striæ; the underside with the basal costal area irrorated with brown, a blackish discoidal spot, waved postmedial and subterminal lines, and terminal series of small black lunules.

Hab. Up. Guinea, Oudoula (*Siguiri*), type † ♀ in Coll. Joannis. *Exp.* 18 millim.

Genus **TITULCIA.**

Type.

Titulcia, Wlk. xxix. 810 (1864) ..... *eximia.*

Proboscis rather small; palpi upturned, the 2nd joint oblique, extending about twice the length of head and moderately scaled, the 3rd very long and slender, and acuminate at tip, with ring of hair near extremity; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; fore and mid tibiæ slightly fringed with hair; abdomen with small crests on two basal segments. Fore wing with the apex somewhat produced and acute, the termen evenly curved and not crenulate; vein 3 from well before angle of cell; 4, 5 from angle; 6 from below upper angle, 7 from angle; 8 and 10 stalked to near apex, 9 absent; 11 from cell. Hind wing with veins 3 and 5 stalked, 4 absent; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Hind wing wholly white.
  a. Fore wing with two subterminal silvery spots below the subapical patch ..... *argyroplaga*.
  b. Fore wing without subterminal spots below the subapical patch.
    a^1. Fore wing with the medial band narrowing to below costa, the inner edge of the subapical patch angled inwards..... *eximia*.
    b^1. Fore wing with the medial band broad and oblique above, the inner edge of the subapical patch not angled inwards ..... *conflictella*.
B. Hind wing white, the terminal area suffused with rufous *rufimargo*.
C. Hind wing rufous, the costal area white ..... *meterythra*.

6833. **Titulcia argyroplaga**, n. sp. (Plate CLXXXVI. fig. 26.)

♂. Head ochreous mixed with blood-red; palpi ochreous, the 2nd joint suffused with brown, the 3rd ringed with brown; thorax silvery white with some ochreous and red at base of tegulæ and patagia; pectus, legs, and abdomen white, the fore femora brown above, the fore and mid tibiæ and tarsi tinged with yellow, the crest on 2nd segment of abdomen tipped with blood-red. Fore wing with the basal area, costal area, and termen yellow suffused and irrorated with rufous, the whole medial area except towards costa suffused with fuscous brown; a triangular silvery-white patch edged with blackish on basal area from below costa to inner margin; a small semi-elliptical medial silvery white patch below costa; a wedge-shaped silvery white subterminal patch from below costa to below vein 5 where it is conjoined to a small triangular spot on vein 4 which is conjoined to a large triangular spot extending to submedian fold, the fuscous extending as slight spots to beyond these silvery markings; cilia black at base and with rufous tips on apical half, yellow on inner half. Hind wing pure white with fine brown terminal line towards apex. Underside of fore wing white with oblique series of fuscous spots from below middle of costa to below vein 6, the spots above veins 6 and 7 larger.

♀. Fore wing with large conical silvery-white medial patch from below costa to inner margin, the subcostal spot of male forming its upper part, the uppermost subterminal patch broader and the lowermost reduced to a small separate triangular spot on vein 3.

Hab. Burma, Maymyo (*Barrow*), 1 ♂ type, Hsipaw (*Watson*), 1 ♀. *Exp.* 22 millim.

6834. **Titulcia eximia.**

Titulcia eximia, Wlk. xxix. 811 (1864).

♂. Head orange-yellow; palpi irrorated with black, the 3rd joint ringed with black; thorax silvery white; pectus, legs, and abdomen white, the fore tibiæ and tarsi yellow irrorated with blackish, the crest on 2nd segment of abdomen yellow. Fore wing yellow tinged with rufous and irrorated with black; a triangular

silvery-white patch edged with black on basal area from below costa to inner margin, a similar medial conical patch suffused with black from just below costa to inner margin, its outer edge slightly dentate below costa; a silvery white subterminal patch defined by rather diffused black from below costa to vein 4, its inner edge angled inwards in discal fold and its outer minutely waved, an oblique black striga above its inner angle from costa,

Fig. 181.—*Titulcia eximia*, ♂. ½.

some black points just before termen between it and tornus; cilia with some black at base on apical half. Hind wing pure white with a series of black points at base of cilia. Underside of fore wing white with a blackish spot beyond upper angle of cell.

♀. Fore wing with the medial patch silvery white edged with black.

Hab. Borneo, Sarawak (*Wallace*), 1 ♂, 1 ♀ type; Pulo Laut (*Doherty*), 1 ♂. *Exp.* 20 millim.

6835. **Titulcia confictella.** (Plate CLXXXVI. fig. 27.)

Titulcia confictella, Wlk. xxix. 811 (1864).
Chionomera queusta, Swinh. A. M. N. H. (6) xii. p. 259 (1893).

Head orange tinged with rufous; thorax silvery white with some orange at base of tegulæ; pectus, legs, and abdomen white, the fore tibiæ and tarsi orange tinged with rufous; the crest on 2nd segment of abdomen orange. Fore wing orange tinged with rufous; a triangular silvery white patch slightly edged with blackish on basal area from below costa to inner margin, a similar patch with minutely waved edges from below costa at middle to inner margin, its outer edge strongly excurved to near termen at vein 5, then oblique; a small subterminal silvery white patch from below costa to vein 6, its outer edge sinuous. Hind wing and underside of fore wing pure white.

Hab. Straits Settlements, Johore, 1 ♀ type *queusta*; Singapore (*Ridley*), 1 ♂; Borneo, Sarawak (*Wallace*), 1 ♀ type. *Exp.* 22 millim.

6836. **Titulcia rufimargo**, n. sp. (Plate CLXXXVI. fig. 28.)

♂. Head yellow with some white between antennæ, which are blackish at tips; thorax silvery white, the tegulæ yellow at base; fore tibiæ yellow with fuscous spots at base and middle, the tarsi

yellow ringed with white, the fore tarsi with some blackish towards extremity; abdomen white dorsally tinged with ochreous, the basal crest white, the 2nd rufous, a slight blackish mark on anal segment. Fore wing yellow irrorated and striated with black-brown; a triangular silvery white patch at base from below costa to inner margin, its edges sinuous and defined by rather diffused black, its apex produced to a point; a conical silvery white medial patch from below costa to inner margin, its apical part obliquely bent inwards, its edges sinuous and defined by diffused black; a quadrate silvery white subapical patch extending down to vein 4, its upper extremity produced to a point below apex, an oblique white striga above its inner extremity, the patch defined by black and with some black-brown suffusion before and below it, the area before and beyond it tinged with rufous; cilia black at base and chequered black and white at tips from apex to vein 3, then yellow. Hind wing white, the terminal half suffused with rufous; cilia white, tinged with rufous at base towards apex. The underside ochreous white; fore wing with oblique black-brown bar above upper angle of cell connected with a patch beyond the angle; hind wing with minute orange spot centred with blackish beyond upper angle of cell.

Hab. Borneo, Sarawak, Matang, 1 ♂ type. *Exp.* 20 millim.

6837. **Titulcia meterythra.** (Plate CLXXXVI. fig. 29.)

Titulcia meterythra, Hmpsn. A. M. N. H. (7) xvi. p. 603 (1905).

♀. Head and thorax dull yellow irrorated with fuscous, the vertex of head, collar and patagia marked with white; abdomen rufous. Fore wing with the basal area, costa, and termen greenish yellow irrorated with fuscous; two subbasal white points; an irregular antemedial white band; a broad postmedial fuscous-brown band with sinuous edges, narrowing to costa and followed by a white band not reaching costa. Hind wing rufous, the costal area white.

Hab. Borneo, Pulo Laut (*Doherty*), 1 ♀ type. *Exp.* 20 millim.

Genus **ARIOLICA.**

	Type.
Ariolica, Wlk. Journ. Linn. Soc., Zool. vii. p. 53 (1864).....	*lineolata.*
Chionomera, Butl. Trans. Ent. Soc. 1881, p. 18	*superba.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about vertex of head and moderately scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed with scales and hair mixed and without crests; tibiæ smoothly scaled; abdomen with minute crests on two basal segments. Fore wing with the apex rounded, the termen obliquely curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell or stalked; 5 from middle of discocellulars; 6, 7 shortly stalked; 8 typically anastomosing with the cell near base only.

Sect. I. Retinaculum of male a tuft of hair from below median nervure; hind wing with the costa lobed near base, vein 8 anastomosing with the cell to beyond middle.

6838. Ariolica triangulifera.

Chionomera triangulifera, Moore, Lep. Atk. p. 285 (1888); Hmpsn. Moths Ind. ii. p. 129; Kirby, Cat. Lep. Het. p. 284.

♂. Head blood-red mixed with fuscous, a white bar above frons, the basal joint of antennæ white behind; palpi white at base; thorax silvery white, the tegulæ red and fuscous at base, a large yellow patch on meso- and metathorax edged with red and black; pectus and legs white, the fore tibiæ and tarsi blood-red and fuscous ringed with white; abdomen pale ochreous. Fore wing yellow suffused with green scales; a silvery white patch at base from below costa to inner margin, defined by black and crimson; the costa brown with crimson and black scales below it to near middle where the crimson and black scales define a small white

Fig. 182.—*Ariolica triangulifera*, ♂. $\frac{1}{1}$.

spot below costa; a crimson point at upper angle of cell; the terminal area purple suffused with black and turning to crimson near the white and black marks on termen, this area oblique from apex to vein 7 where it is produced to a slight point towards costa and with an oblique crimson striga beyond it, then the area defined on inner side by blackish and slightly angled inwards in submedian fold; three white spots defined by black before apical part of termen, then a triangular white patch extending from vein 5 to 2 with a small spot below it; cilia pale rufous with some black and crimson scales. Hind wing white, the inner and terminal areas faintly tinged with brown. Underside of fore wing white, the costal edge and terminal area brown.

Hab. Assam, Khásis, 2 ♂. *Exp.* 30 millim. Type † in Mus. Berlin.

Sect. II. Retinaculum of male bar-shaped, from subcostal nervure; hind wing with the costa not lobed at base, vein 8 anastomosing with the cell near base only.

A. Fore wing greenish yellow with fine white lines .... *lineolata*.
B. Fore wing with silvery white band and patches.
a. Fore wing with yellow markings strongly tinged with green *pulchella*.

b. Fore wing with orange markings not tinged with green.
*a*¹. Fore wing with the black line on outer edge of the medial band irregular.
*a*². Fore wing with the outer edge of the subapical white patch not strongly indented ..... *chinensis*.
*b*². Fore wing with the outer edge of the subapical white patch strongly indented ..... *superba*.
*b*¹. Fore wing with the black line on outer edge of the medial band almost evenly curved ..... *argentea*.

*6839. **Ariolica lineolata.** (Plate CLXXXVI. fig. 30.)

Ariolica lineolata, Wlk. Journ. Linn. Soc., Zool. vii. p. 53 (1864).

♂. Head, tegulæ, and patagia greenish yellow; antennæ white; dorsum of thorax white; pectus and legs white; abdomen white dorsally tinged with ochreous. Fore wing greenish yellow; a fine obliquely curved white subbasal line from costa to vein 1; a fine slightly sinuous white antemedial line; reniform small, finely defined by white; postmedial line fine, white, acutely angled inwards below costa, excurved to vein 4, then incurved; some white points on costa towards apex. Hind wing white, the inner and terminal areas and cilia suffused with ochreous; the underside wholly white except the cilia.

Hab. Borneo, Sarawak (*Wallace*), type † ♂ in Mus. Oxon. *Exp.* 28 millim.

6840. **Ariolica pulchella.**

Chionomera pulchella, Elwes, P. Z. S. 1890, p. 387, pl. 32. f. 15; Hmpsn. Moths Ind. ii. p. 130; Kirby, Cat. Lep. Het. p. 284.

Head yellow, white behind; thorax white; the metathorax with yellow patch; antennæ ringed black and white; tibiæ yellow above, the tarsi streaked with black; abdomen white, the crests at base

Fig. 183.—*Ariolica pulchella*, ♂. ½.

yellow. Fore wing white; a greenish yellow fascia on costa from base to the broad greenish yellow antemedial band with its edges sinuous and defined by black as also the lower edge of the fascia; the apical area yellow from middle of costa near the antemedial band to tornus, its inner edge sinuous and defined by black, a postmedial spot on it just below costa and a lunulate spot before termen from below vein 3 to submedian fold, both defined by black on inner side; an oblique

quadrate white patch from just below apical part of costa to vein 4, its edges sinuous and defined by black; cilia chequered blackish and greenish yellow from apex to vein 2. Hind wing pure white. Underside of fore wing white with triangular greenish yellow patch below postmedial part of costa.

Ab. 1. Fore wing without the white spots below costa and before termen.—Khásis.

Hab. Sikhim (*Möller, Dudgeon*), 2 ♂, 2 ♀; Assam, Khásis, 2 ♂; Burma, E. Pegu. *Exp.* 24–30 millim. Type † in Coll. Rothschild.

6841. Ariolica chinensis. (Plate CLXXXVI. fig. 31.)

Ariolica chinensis, Swinh. A. M. N. H. (7) x. p. 49 (1902).

Head, thorax, and abdomen white; palpi brownish towards tips; antennæ ringed with fuscous; tibiæ and tarsi tinged with brownish. Fore wing pure white, the costal edge blackish; an orange spot at base of costa conjoined by a fascia to an orange antemedial band with sinuous edges slightly defined by black; the apical area orange from costa beyond middle to inner margin just before tornus, its inner edge sinuous and defined by black; a postmedial white spot on it just below costa and another lunulate spot before termen from below vein 3 to submedian fold, both defined on inner side by black; an oblique quadrate white patch with irregular edges from just below apical part of costa to above vein 4, its edges defined by black except towards apex; cilia orange at base, blackish at tips. Hind wing pure white. Underside of fore wing white with triangular yellow patch below postmedial part of costa.

Hab. W. China, Omeishan, 2 ♂, 3 ♀ type, Kia-ting-fu, 1 ♂, 1 ♀. *Exp.* 26–32 millim.

6842. Ariolica superba.

Tyana superba, Moore, P. Z. S. 1867, p. 668, pl. 33. f. 15; Hmpsn. Moths Ind. ii. p. 129; Kirby, Cat. Lep. Het. p. 284.

Head orange; palpi white, the 2nd and 3rd joints ochreous brown towards extremities; antennæ ringed white and brown; thorax white, the shoulders with orange streaks; fore and mid tibiæ brownish ochreous in front, the fore tarsi ochreous ringed with white; abdomen white. Fore wing silvery white; the costa orange to the postmedial band, the costal edge black; a small subbasal black spot below costa; a slightly sinuous antemedial orange band, somewhat bent inwards towards costa and defined on outer side by black, connected on costa by a fascia with an oblique orange band from costa beyond middle to termen above tornus, expanding triangularly at costa and termen and enclosing white spots just below costa and on termen, its inner edge sinuous and defined by black, strongly beyond the angles of cell, its outer edge slightly defined by black at the narrow part; a triangular orange patch on

termen at discal fold; cilia black towards apex, then orange with blackish spots. Hind wing pure white. Underside of fore wing white with some fuscous beyond upper angle of cell.

Hab. Sikhim; Bhután; Assam, Khásis, 1 ♂, 1 ♀ type. *Exp.* 32 millim.

6843. Ariolica argentea. (Plate CLXXXVI. fig. 32.)

Chionomera argentea, Butl. Trans. Ent. Soc. 1881, p. 18; Kirby, Cat. Lep. Het. p. 284.

Head, thorax, and abdomen pure white; palpi, frons, antennæ, and legs tinged with ochreous. Fore wing silvery white; a subbasal orange spot on costa; an antemedial orange band, expanding at costa and slightly defined on outer edge by black; a slightly curved orange band from costa beyond middle to tornus, expanding into a large triangular patch at costa on which it encloses a white spot, the band edged with black; an orange terminal band from apex to submedian fold, defined on inner side by black; cilia tinged with yellow except towards tornus. Hind wing silvery white.

Ab. 1. Fore wing with the markings almost obsolete and only faintly traceable.

Hab. Japan, Nikko (*Maries*, *Lewis*, *Ito*), 1 ♂, 2 ♀, Tokio (*Fenton*), 1 ♂, 1 ♀, Yokohama (*Pryer*, *Manley*, *Bristowe*), 4 ♂, 5 ♀ type. *Exp.* 28–32 millim.

Genus CERALA.

	Type.
Kerala, Moore, P. Z. S. 1881, p. 329	*punctilineata.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about vertex of head and moderately scaled, the 3rd moderate; frons smooth with tuft of hair above; eyes large, round; antennæ of male ciliated, a ridge of scales between their bases; thorax clothed with hair and scales mixed, the prothorax without crest, the metathorax with spreading crest; tibiæ smoothly scaled; abdomen without crests. Fore wing rather long and narrow, the apex rectangular, the termen slightly excised at discal fold and at tornus, not crenulate; vein 3 from before angle of cell; 5 from just above angle; 9 and 10 anastomosing with 8 to form a moderate areole; 6 from the areole; 11 from cell; small tufts of raised scales at middle of cell and on discocellulars. Hind wing with veins 3, 4 stalked; 5 fully developed from below middle of discocellulars; 6, 7 stalked; 8 anastomosing with the cell to near middle; the upper and undersides in male clothed with androconia except the costal and terminal areas; the retinaculum of male formed by a tuft of hair from below median nervure.

A. Fore wing with the postmedial and subterminal lines not closely approximated, the former bent outwards above inner margin.	
a. Fore wing wholly suffused with olive-green and without dark shade before subterminal line	*punctilineata.*
b. Fore wing grey slightly tinged with olive-green on inner half and with purplish shade before subterminal line	*grisea.*

B. Fore wing with the postmedial and subterminal lines closely approximated, the former not bent outwards above inner margin.
  a. Fore wing grey tinged with olive-green, the medial area suffused with purplish red from below costa to discal fold ..... *decipiens*.
  b. Fore wing suffused with purple from costa to submedian fold, the inner area suffused with green..... *multipunctata*.

6844. Cerala punctilineata.

Kerala punctilineata, Moore, P. Z. S. 1881, p. 330; Hmpsn. Moths Ind. ii. p. 62.

♂. Head and thorax olive-green with a few rufous and blackish scales; pectus grey; tarsi banded with blackish; abdomen ochreous white. Fore wing olive-green, the basal area irrorated with purplish red, the medial area with series of blackish points on whitish streaks and with purplish red suffusion from below costa to discal fold and oblique streak below vein 2; antemedial line indistinctly double, dark, oblique from costa to submedian fold, then inwardly oblique; the small tufts of scales at middle of cell and on disco-cellulars whitish; postmedial line blackish brown, excurved below

Fig. 184.—*Cerala punctilineata*, ♂. ½.

costa, oblique and slightly sinuous to submedian fold and bent outwards above inner margin; subterminal line grey defined on outer side by small dentate black marks from below costa to vein 3, then by a black line; a slight whitish line just before termen with slight dark green marks before it; cilia with a dark line near base. Hind wing ochreous white, the patch of androconia rufous, the costal and terminal areas tinged with pale purplish.

♀. Head, thorax, and fore wing greener without the purplish red tints.

Hab. Sikhim (*Lidderdale, Möller*), 5 ♂, 3 ♀ type; Assam, Nágas; Pulo Laut (*Doherty*), 1 ♀. *Exp.* 36–44 millim.

6845. Cerala grisea, n. sp. (Plate CLXXXVII. fig. 1.)

Head and thorax grey mixed with some black; pectus and legs brownish grey, the tarsi blackish ringed with white; abdomen brownish white. Fore wing grey tinged with olive-green on inner half to just beyond postmedial line and with purplish on costal and postmedial areas; antemedial line indistinctly double, black, rather

diffused, oblique from costa to submedian fold, then inwardly oblique; the tufts of scales at middle and end of cell white, the latter with some black beyond it; an oblique black streak below base of vein 2; postmedial line black, slightly excurved below costa, oblique and very minutely waved to submedian fold and bent outwards above inner margin; subterminal line black, oblique, dentate, defining the outer edge of the purplish shade, obsolescent on costal area; a series of diffused blackish spots before termen or the terminal area whitish almost without markings. Hind wing whitish, the patch of androconia pale rufous, the apical area tinged with purplish, in female the whole terminal area tinged with fuscous.

Hab. Sikhim Tibet, Yatung (*Hobson*), 2 ♂, 2 ♀ type. *Exp.* 42-44 millim.

6846. Cerala decipiens.

Cyana decipiens, Butl. A. M. N. H. (5) iv. p. 352 (1879); Kirby, Cat. Lep. Het. p. 300.

Leptina macroptera, Oberth, Ét. Ent. v. p. 68, pl. 7. f. 2 (1880); Staud. Cat. Lep. pal. p. 373.

♂. Head and thorax grey mixed with some purplish red; palpi purplish red; abdomen brownish white. Fore wing grey-white tinged with olive-green, the medial area from below costa to discal fold suffused with purplish red, on terminal area the costal area suffused with purplish, the medial area with series of brown points on costa and on the veins of inner half; antemedial line blackish, excurved from costa to submedian fold, then incurved; an oblique black discoidal lunule; postmedial line excurved and obsolescent from costa to discal fold, then black, minutely waved, incurved below vein 2, closely approximated to a dentate black subterminal line from vein 6 to inner margin; cilia purplish red and white. Hind wing whitish tinged with brown; the terminal area suffused with brown from apex to discal fold.

Hab. Mongolia; E. Siberia, Amurland, Ussuri; Japan, Yokohama (*Pryer*), 1 ♀ type; W. China. *Exp.* 40 millim.

6847. Cerala multipunctata.

Kerala multipunctata, Moore, Lep. Atk. p. 93, pl. iv. f. 4 (1882); Hmpsn. Moths Ind. ii. p. 62.

Kerala dorsoviridis, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 297 (1897).

Head and thorax grey tinged with brown; palpi red-brown, whitish in front; shoulders red-brown; abdomen brownish white. Fore wing grey suffused with purplish, the area below submedian fold with olive-green, the medial area with series of brown points on costa and on the veins which are streaked with whitish; a slight blackish subbasal line, somewhat angled outwards below costa and ending at submedian fold in which there is a slight black streak beyond it; antemedial line indistinctly double, blackish, slightly angled outwards in submedian fold; a slight tuft of green scales at middle of cell and black discoidal bar; postmedial line indistinctly

double, blackish filled in with tufts of raised green scales, arising below the costa and incurved below vein 3, closely approximated to the double maculate waved black subterminal line which has some whitish before it towards inner margin; cilia with a series of black points at tips. Hind wing whitish, the patch of androconia rufous; a terminal brownish band from apex to vein 3, in female extending to submedian fold.

Hab. ? Sikhim; Assam, Khásis, 1 ♂, 1 ♀ type *dorsoviridis*. *Exp.* ♂ 36, ♀ 40 millim.

Genus TYANA.

	Type.
Tyana, Wlk. xxxv. 1776 (1866)	*callichlora*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to middle of frons and slenderly scaled, the 3rd long; frons smooth; eyes large, round; antennæ of male almost simple, the basal joint large; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled; abdomen with small dorsal crest at base only. Fore wing broad, the costa highly arched, the apex somewhat produced and acute, the termen typically evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from well below upper angle; 7, 8, 9, 10 stalked, 10 from beyond 7; 11 from cell. Hind wing with vein 4 absent; 5 fully developed, from angle of cell or shortly stalked with 3; 6, 7 from upper angle; 8 anastomosing with the cell to middle. Retinaculum of male a tuft of hair from below median nervure.

Sect. I. Hind wing of male with large fold on inner area containing a mass of flocculent hair.

A. Fore wing with the termen evenly curved.
  a. Fore wing with pale striæ, of female with terminal red band.
    *a*¹. Fore wing of female with the terminal red band expanding into large patches at discal and submedian folds ..... *callichlora*.
    *b*¹. Fore wing of female with the terminal red band hardly expanding at discal and submedian folds ..... *tenuimargo*.
  b. Fore wing without pale striæ or terminal red band ..... *monosticta*.

6848. Tyana callichlora.

Tyana callichlora, Wlk. xxxv. 1776 (1886); Butl. Ill. Het. B.M. vi. p. 14, pl. 105. ff. 2, 3; Hmpsn. Moths Ind. ii. p. 130; Kirby, Cat. Lep. Het. p. 283.

♂. Head silvery white, the palpi with red bands on 2nd and 3rd

Fig. 185.—*Tyana callichlora*, ♂. ½.

joints, antennæ reddish with a red band between their bases; tegulæ silvery white, red at base; patagia silvery white, red at shoulders

and tips; thorax pale yellow-green, the metathorax with white patches edged with red; pectus and legs white, the fore legs and mid tibæ suffused with red; abdomen white dorsally tinged with brown. Fore wing yellow-green with numerous fine pale striæ, the costal edge reddish; a small oblique white patch at base, its outer edge defined by red and excurved below costa and above inner margin; a more or less developed red spot usually present at origin of vein 2; a narrow red terminal band with series of white spots and striæ on it; cilia red at base, white at tips. Hind wing white slightly tinged with brown except the costal and terminal areas.

♀. Fore wing striated with yellow; a small antemedial red spot below costa, the spot at origin of vein 2 well developed; some yellow before the terminal red band which expands widely at discal and submedian folds, the white markings on it reduced to points and obsolete towards tornus. Hind wing pure white.

Hab. Sikhim (*Atkinson*, *Russell*, *Lidderdale*, *Möller*), 4 ♂, 8 ♀ type. *Exp.* 34–42 millim.

6849. **Tyana tenuimargo.** (Plate CLXXXVII. figs. 2 ♂, 3 ♀.)

Tyana tenuimargo, Druce, A. M. N. H. (8) viii. p. 150 (1911).

♂. Head and tegulæ white; palpi crimson except at base; antennæ brown, crimson towards base and a bar between their bases crimson; patagia white irrorated with crimson; dorsum of thorax green, the metathorax with lateral white patches edged with crimson; pectus and legs white, the fore tibiæ and tarsi crimson; abdomen white dorsally suffused with brown, the basal crest crimson. Fore wing yellow-green with numerous faint pale striæ, the costal edge white tinged with crimson; a white spot edged with crimson at base; a crimson point at origin of vein 2; the termen crimson with some white points and striæ on it; cilia whitish. Hind wing white suffused with pale brown except on costal and terminal areas. Underside of fore wing greenish white; hind wing white.

♀. Abdomen white; fore wing with the pale striæ prominent, an antemedial red spot on costa, the spot at origin of vein 2 small to large and extending from well above median nervure to vein 1, the terminal red band expanding very slightly at discal and submedian folds; hind wing pure white.

Hab. Assam, Khásis, 1 ♂, 1 ♀. *Exp.* 30–36 millim. Type † ♂, ♀ in Coll. Druce.

6850. **Tyana monosticta**, n. sp. (Plate CLXXXVII. fig. 4.)

Tyana acypera, Hmpsn. A. M. N. H. (7) xvi. p. 601 (1905), ♀ nec ♂.

♀. Head, tegulæ, and base of patagia yellow; palpi white suffused with pink towards tips; frons pink; antennæ brownish, pink towards base; thorax yellow-green; pectus and legs white, some pink below shoulders, the fore legs suffused with pink; abdomen

white. Fore wing yellow-green; the costal edge white with some yellow below it towards base, the inner margin yellow; a reddish discoidal spot usually with white centre; cilia white with some pink at apex. Hind wing pure white.

Hab. W. China, Pu-tsu-fong, 2 ♀ type. *Exp.* 38 millim.

B. Fore wing of male with the apex strongly produced and acute, the termen almost straight.

6851. Tyana falcata.

Hylophila falcata, Wlk. xxxv. 1772 (1866); Butl. Ill. Het. B.M. vi. p. 16, pl. 105. f. 9; Hmpsn. Moths Ind. ii. p. 131; Kirby, Cat. Lep. Het. p. 283.
Tyana pustulifera, Leech, Trans. Ent. Soc. 1899, p. 203 (nec Wlk.).
Tyana acypera, Hmpsn. A. M. N. H. (7) xvi. p. 601 (1905), ♂.
Tyana literata, Wileman, Entom. 1910, p. 345.

Head and thorax yellow-green; palpi white, suffused with pink towards tips; frons white with pink bar above; antennæ brown, ringed with pink and white towards base; pectus and legs white, some pink below the shoulders, the fore tibiæ and tarsi and the extremities of mid femora suffused with pink; abdomen white. Fore wing yellow-green; the costal edge brown and white; brown

Fig. 186.—*Tyana falcata*, ♂. ½.

spots at angles of cell and sometimes a point at origin of vein 2 with another below it in submedian fold; the termen and cilia yellowish. Hind wing white.

Ab. 1. Back of head and base of tegulæ with some yellow; fore wing with the costa yellowish white.

Ab. 2. *literata*. Fore wing with sinuous brown discoidal bar.—Formosa.

Hab. W. China, Omei-shan, 1 ♂ type *acypera*; Formosa, Daitozan, 8,500′, type † ♀ *literata* in Coll. Wileman; Sikhim (*Atkinson*, *Russell*, *Lidderdale*, *Möller*), 3 ♂, 6 ♀ type. *Exp.* 32–36 millim.

Sect. II. Hind wing of male with tuft of long red hair on inner margin on underside; fore wing with the termen straight.

6852. Tyana pustulifera.

Earias pustulifera, Wlk. xxxv. 1773 (1866); Butl. Ill. Het. B.M. vi. p. 16, pl. 105. f. 7; Hmpsn. Moths Ind. ii. p. 131; Kirby, Cat. Lep. Het. p. 283.
Tyana flatoides, Moore, Lep. Atk. p. 285 (1887); Kirby, Cat. Lep. Het. p. 283.

♂. Head yellow with red lines at middle and above frons and band on vertex of head; palpi white, red towards extremity; antennæ red with white patch on basal joint; tegulæ and base of patagia white edged with red, the rest of thorax yellow-green; pectus, legs, and abdomen white, the fore tibiæ red. Fore wing

Fig. 187.—*Tyana pustulifera*, ♂. ½.

yellow-green, the costal edge brownish white towards apex; a white spot edged with red at base of costa and subbasal brown striga on inner margin; cilia pale yellow, brown at apex. Hind wing pure white; the underside with the tuft of hair on inner margin red.

Ab. 1. Fore wing with brown spot below lower angle of cell, the cilia crimson at apex.—Khásis.

Ab. 2. *flotoides*. Fore wing with a reddish brown patch striated with whitish from lower angle of cell to inner margin, constricted at submedian fold and sometimes with a small white spot edged with brown above it at lower angle of cell.

♀. Fore wing with a yellow spot defined by red at lower angle of cell, sometimes with a brown point below it.—Sikhim.

Hab. Nepal (*Hardwicke*), 1 ♂ type; Sikhim (*Dudgeon*), 1 ♂; Assam, Khásis (*Badgley*), 1 ♂, 1 ♀. *Exp.* 38–46 millim.

Sect. III. Hind wing of male normal; fore wing with the termen almost straight.

6853. Tyana chloroleuca.

Tyana chloroleuca, Wlk. xxxv. 1777 (1866); Butl. Ill. Het. B.M. vi. p. 15, pl. 105. ff. 5, 6; Hmpsn. Moths Ind. ii. p. 131; Kirby, Cat. Lep. Het. p. 283,

Tyana speculatrix, Butl. A. M. N. H. (5) vi. p. 64 (1880); Kirby, Cat. Lep. Het. p. 283.

Tyana lancina, Butl. A. M. N. H. (5) vi. p. 65 (1880); Kirby, Cat. Lep. Het. p. 283.

Head, tegulæ, and patagia yellow; palpi white, tinged with red at extremity; antennæ brownish, the basal joint yellow tinged with red; shoulders with reddish streaks; dorsum of thorax green; pectus, legs, and abdomen white, the fore and mid tibiæ tinged with red. Fore wing yellow-green, the costal edge brownish; a small yellow spot with some crimson on it at base; a slight yellow sub-

basal spot with crimson striga on it at inner margin; small obliquely placed red-brown spots on lower discocellular, and in and below lower end of cell; cilia white, crimson at apex and brownish at tornus. Hind wing pure white.

Fig. 188.—*Tyana chloroleuca*, ♂. ½.

Ab. 1. *lancina*. Fore wing without the brown spots at lower end of cell.

Ab. 2. *speculatrix*. Fore wing with white spots defined by brown on lower discocellular and below the cell with a brown spot between them.

Hab. Sikhim (*Atkinson, Russell, Lidderdale, Möller, Pilcher*), 7 ♂, 10 ♀, type and type *speculatrix*; Bhután (*Lidderdale*), 1 ♀ type *lancina*. *Exp.* 34–38 millim.

Genus **EARIAS**.

	Type.
Earias, Hübn. Verz. p. 395 (1827)	*chlorana*.
Aphusia, Wlk. xii. 769 (1857)	*fabia*.
Digba, Wlk. Journ. Linn. Soc., Zool. vi. p. 197 (1862)	*annulifera*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about vertex of head and typically moderately scaled, the 3rd typically short, oblique; frons smooth, with tuft of hair above; eyes large, round; antennæ of male minutely ciliated; thorax clothed with scales and hair mixed and without crests; tibiæ typically smoothly scaled; abdomen with minute crests on two basal segments. Fore wing with the apex somewhat produced, the termen obliquely curved and not crenulate; vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with veins 3 and 5 stalked, 4 absent; 6, 7 from upper angle; 8 anastomosing with the cell to near middle; retinaculum of male formed by a tuft of hair from below median nervure.

Sect. I. Palpi broadly scaled and with tuft of hair at extremity of 2nd joint behind; mid femora of male much dilated and the tibiæ fringed with long hair on each side.

A. Fore wing with traces of ante- and postmedial lines with series of dark points on them ..... *novoguineana*.
B. Fore wing without ante- and postmedial lines.
a. Fore wing of male with the reniform oblique elliptical, red-brown with whitish centre ..... *rufopunctata*.
b. Fore wing of male with the reniform bar-shaped and constricted at middle, dark brown with scarlet centre ..... *uniplaga*.

6854. Earias novoguineana. (Plate CLXXXVII. fig. 5.)

Earias novoguineana, Beth.-Baker, Nov. Zool. xiii. p. 219 (1906).

Head and thorax orange-yellow; palpi and sides of frons scarlet; antennæ brown, the basal joint scarlet; shoulders with scarlet stripes; fore legs brown above, mid legs with the femoro-tibial joint brown with a little scarlet beyond it, the tarsi brown; abdomen white, the anal tuft yellow. Fore wing yellow tinged with orange; obliquely placed brown antemedial points in and below cell and above inner margin; a round brown discoidal spot; a faint brownish postmedial line, excurved from costa to vein 4, then oblique, with brown points on it below costa, at discal and submedian folds, and above inner margin. Hind wing semihyaline yellowish white.

Hab. Br. N. Guinea, Dinawa (*Pratt*), 1 ♂, 2 ♀, Babooni (*Pratt*), 1 ♀, Avola (*Pratt*), 1 ♂, Mt. Kebea (*Pratt*), 1 ♂. *Exp.* 34 millim. Type † in Coll. Bethune-Baker.

6855. Earias rufopunctata. (Plate CLXXXVII. fig. 6.)

Earias rufopunctata, Beth.-Baker, Nov. Zool. xiii. p. 219 (1906).

♂. Head and thorax pale yellow; palpi scarlet with brown patch at side of 2nd joint, the extremity pale yellow; antennæ brown, the basal joint scarlet; fore legs brown above, the hind legs with the femoro-tibial joint brown and scarlet, the tarsi brown; abdomen white. Fore wing pale yellow, the costal edge tinged with scarlet on basal half; an oblique elliptical red-brown discoidal spot with whitish centre. Hind wing semihyaline white, the termen and cilia faintly tinged with yellow; the underside with the costal area tinged with yellow.

♀. Fore wing without the discoidal spot.

Hab. Br. N. Guinea, Mt. Kebea (*Pratt*), 2 ♂, 1 ♀. *Exp.* 28 millim.

6856. Earias uniplaga.

Earias uniplaga, Beth.-Baker, Nov. Zool. xiii. p. 219 (1906).

♂. Head and thorax pale yellow, the palpi dark brown with

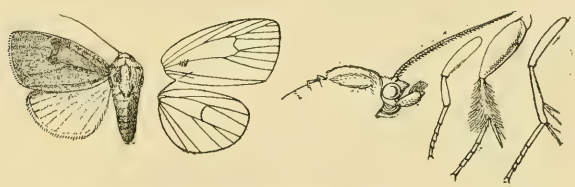


Fig. 189.—*Earias uniplaga*, ♂. ½.

some scarlet in front and at extremity of 2nd joint behind, the tuft of hair on 2nd joint and the extremity of 3rd joint pale yellow;

antennæ brown, the basal joint scarlet; shoulders with scarlet stripes; fore legs brown above, the mid legs with some brown at femoro-tibial joint and scarlet streak on the tibia above, the tarsi brown slightly ringed with white; abdomen yellowish white. Fore wing pale yellow; the base of costa brown; a brown discoidal bar, produced above and below on both inner and outer sides like a capital **I** and with a similarly formed scarlet discoidal striga on it. Hind wing semihyaline yellowish white.

♀. Fore wing without the bar-shaped mark at end of cell.

Hab. Br. N. Guinea, Milne Bay (*Meek*), 2 ♂, Babooni (*Pratt*), 1 ♂, Mt. Kebea (*Pratt*), 3 ♂, 1 ♀. *Exp.* 30 millim. Type † in Coll. Bethune-Baker.

Sect. II. Palpi and mid legs of male normal.

A. Fore wing with more or less distinct transverse lines.
  a. Fore wing yellow with hardly any green tinge.
    a^1. Fore wing with the cilia tipped with brown.
      a^2. Fore wing with the postmedial line slightly angled inwards at discal fold ..... *citrina.*
      b^2. Fore wing with the postmedial line not angled inwards at discal fold ..... *luteolaria.*
    b^1. Fore wing with the cilia not tipped with brown... *flavida.*
  b. Fore wing green or strongly tinged with green.
    a^1. Fore wing with the cilia dark brown; hind wing suffused with purple..... *ogovana.*
    b^1. Fore wing with the cilia tipped with brown; hind wing semihyaline white ..... *biplaga.*
    c^1. Fore wing with the cilia not tipped with brown.
      a^2. Fore wing with the costal and inner areas broadly white ..... *huegeli.*
      b^2. Fore wing with the costal and inner areas not white.
        a^3. Fore wing with the postmedial line excurved below costa, then oblique.
          a^4. Fore wing with three transverse lines..... *insulana.*
          b^4. Fore wing with two transverse lines ..... *vernana.*
        b^3. Fore wing with the postmedial line oblique throughout.
          a^4. Fore wing with three transverse lines; hind wing white, the termen tinged with brown ..... *parallela.*
          b^4. Fore wing with two transverse lines; hind wing pale yellow ..... *subviridis.*
B. Fore wing without transverse lines.
  a. Fore wing with brown terminal band.
    a^1. Fore wing with the terminal band broad; hind wing suffused with brown .... *latimargo.*
    b^1. Fore wing with the terminal band narrow; hind wing semihyaline white ..... *cupreoviridis.*
  b. Fore wing without brown terminal band.
    a^1. Fore wing olive-green suffused with reddish; hind wing tinged with red ..... *glaucescens.*
    b^1. Fore wing green with more or less developed patch of pink suffusion on disk; hind wing tinged with brown ..... *roseifera.*

c^1. Fore wing green without pink or red suffusion; hind wing semihyaline white.
  a^2. Fore wing with the cilia tipped with brown ... *pudicana.*
  b^2. Fore wing with the cilia not tipped with brown.
    a^3. Fore wing with the costal and inner areas broadly white ..... *fabia.*
    b^3. Fore wing with the costal and inner areas not broadly white.
      a^4. Fore wing on underside white, the terminal area tinged with green.
        a^5. Fore wing irrorated with white ..... *syriacana.*
        b^5. Fore wing not irrorated with white..... *chlorana.*
      b^4. Fore wing on underside white tinged with brown to termen.
        a^5. Fore wing with the cilia orange-yellow at tips ..... *chlorophyllana.*
        b^5. Fore wing with the cilia white at tips... *smaragdina.*
d^1. Fore wing pale greenish yellow ..... *ochrophylla.*

6857. Earias citrina. (Plate CLXXXVII. fig. 7.)

Earias citrina, Saalm. Lep. Madag. i. p. 178 (1884); Kirby, Cat. Lep. Het. p. 282.
Earias crocea, Mab. Ann. Soc. Ent. Fr. 1899, p. 727.

Head and thorax ochreous tinged with rufous; palpi rufous mixed with white; antennæ brown; pectus and legs white, the fore tibiæ and the tarsi suffused with rufous and ringed with white; abdomen white dorsally tinged with ochreous, the crests at base yellow, the 2nd tipped with rufous. Fore wing ochreous tinged with rufous; a faint oblique brownish antemedial line, excurved below costa and cell and above inner margin, with small brown spots on it below costa, in cell and in submedian fold; a small round brown discoidal spot; postmedial line slight, brownish with a series of brown points on it, excurved below costa, slightly incurved at discal fold and incurved below vein 4; a slight brownish subterminal line with series of brown points on it, excurved below costa and at middle and incurved at discal fold and below vein 3; cilia brown except at base. Hind wing semihyaline white, the termen and cilia towards apex tinged with reddish ochreous.

Ab. 1. Head, thorax, and fore wing orange-yellow.

Ab. 2. Similar but fore wing with the markings nearly obsolete.

Ab. 3. Head, thorax, and fore wing pale yellow, the last tinged with green except on basal and costal areas, the markings slight, greenish.

Hab. Sokotra, Jena-agahan (*O.-Grant*), 1 ♂, Adho Dimellus (*O.-Grant*), 1 ♂; Br. E. Africa, Eb Urru (*Betton*), 1 ♀, Nairobi (*Crawshay*), 1 ♂, Machakos (*Crawshay*), 1 ♂, Escarpment (*Doherty*), 1 ♂; Mozambique, Beira (*Sheppard*), 1 ♀; Natal, 1 ♀; Madagascar; Comoro Is. *Exp.* 24 millim.

6858. Earias luteolaria.

Earias luteolaria, Hmpsn. Ill. Het. B.M. viii. p. 46, pl. 139. f. 16 (1891); id. Moths Ind. ii. p. 134.

Head and thorax bright yellow; palpi white, red-brown towards tips; frons with some red-brown at sides; antennæ brown; pectus and legs white, the fore femora and tibiæ above and the tarsi purple-brown irrorated with white; abdomen white dorsally tinged with yellow, the basal crests yellow. Fore wing bright yellow; traces of an antemedial line, excurved below costa and cell and above inner margin and incurved in cell and above vein 1; traces of a postmedial line, excurved from below costa to vein 4, then incurved; traces of a subterminal line, excurved below costa and at middle and incurved at discal fold and below vein 3; cilia yellow shading to rufous, the tips dark brown mixed with whitish. Hind wing semihyaline white, the termen and cilia tinged with yellow.

Ab. 1. Head, thorax, and fore wing orange-yellow, the last with series of brown points on the lines.

Ab. 2. Fore wing with the terminal area suffused with pink except towards apex.

Hab. Madras, Nilgiris (*Hampson*), 1 ♂, 1 ♀ type; Ceylon, Pundaloya (*Green*), 1 ♀, Matale (*Pole*), 1 ♀; New Caledonia (*Mathew*), 1 ♀; Queensland, Brisbane (*Turner*), 1 ♀. *Exp.* 22–26 millim.

6859. Earias flavida.

Earias flavida, Feld, Sitz. Akad. Wiss. Wien, xliii. p. 34 (1861); Kirby, Cat. Lep. Het. p. 282.
Digba uninotata, Wlk. Journ. Linn. Soc., Zool. vi. p. 198 (1862); Hmpsn. Moths Ind. ii. p. 134.
Earias annulifera, Wlk. xxxv. 1774 (1866); Hmpsn. Ill. Het. B.M. ix. p. 87, pl. 157. f. 18; Kirby, Cat. Lep. Het. p. 913.
Earias sulphuraria, Moore, Lep. Ceyl. iii. p. 490, pl. 208. f. 10 (1887).

Head and thorax yellow; palpi white, purple-brown towards tips; antennæ brown; pectus and legs white, the fore femora and tibiæ above, the femoro-tibial joint of hind legs and the tarsi purple-brown irrorated with white, the mid and hind tibiæ tinged with yellow; abdomen white dorsally tinged with yellow, the basal crests yellow. Fore wing canary-yellow, the terminal area tinged with green; traces of an oblique sinuous antemedial line with brown points on it in and below cell and some green beyond it above vein 1; a small chocolate-brown discoidal annulus; an indistinct greenish postmedial line, oblique from costa to discal fold, then inwardly oblique. Hind wing semihyaline white.

Ab. 1. *sulphuraria*. Fore wing with the lines hardly traceable, the discoidal annulus absent.

Hab. Madras, Belgaum (*Watson*), 2 ♀, Nilgiris (*Hampson*), 2 ♂, 1 ♀; Travancore, Pirmád (*Mrs. Imray*), 2 ♀; Ceylon (*Lindesay*), 1 ♂, 2 ♀, type *sulphuraria*; Sumatra, Plains of Alloc, 1 ♀; Borneo, 1 ♀, Kuching (*Shelford*), 1 ♀; Java (*Horsfield*), 1 ♂, type *annulifera*; Amboina. *Exp.* 20–24 millim. Type † *uninotata* in Mus. Oxon.

6860. Earias ogovana. (Plate CLXXXVII. fig. 8.)

Earias ogovana, Holl. Psyche, vi. p. 398 (1893).

♀. Head and thorax yellow-green; palpi brown and white; antennæ brown; pectus and legs white, the fore tibiæ and tarsi dark brown, the latter ringed with white; abdomen dark brown, the ventral surface white except towards extremity. Fore wing yellow-green; a medial dark green line, oblique from costa to median nervure, then erect; postmedial line dark green, excurved from costa to submedian fold; the costal edge towards apex and the cilia dark purple-brown. Hind wing whitish wholly suffused with purple-brown, the cilia paler with a brown line through them. Underside of fore wing whitish suffused with purple-brown; hind wing whitish, the costal area and terminal area to vein 3 irrorated with brown.

Hab. Gold Coast, Bibianaha (*Spurrell*), 1 ♀; S. Nigeria, Olokemeji (*Dudgeon*), 1 ♀; Ilesha (*Humphrey*), 1 ♀; Gaboon, Ogové R., type † in Coll. Holland. *Exp.* 28 millim.

6861. Earias biplaga.

Earias biplaga, Wlk. xxxv. 1773 (1866); Kirby, Cat. Lep. Het. p. 282.
Earias fusciciliana, Snell. Tijd. v. Ent. xv. p. 36 (1872); Kirby, Cat. Lep. Het. p. 282.
Earias maculana, Snell. Tijd. v. Ent. xv. p. 36 (1872); Kirby, Cat. Lep. Het. p. 282.
Earias plaga, Feld. Reis. Nov. pl. 108. f. 20 (1874).

Head and thorax yellow-green; palpi brown mixed with white; antennæ brown; pectus and legs white, the fore tibiæ and tarsi and the extremities of mid and hind tarsi chocolate-brown irrorated with white; abdomen white dorsally tinged with brownish. Fore wing yellow-green; traces of medial and postmedial waved lines, oblique and green from costa to discal fold, then dark brown filled in with brown irrorated with dark brown and with the indistinct dark discoidal spot on its inner edge; traces of a green subterminal line, excurved below vein 7 and at middle; cilia with the tips chocolate-brown irrorated with grey. Hind wing semihyaline white, the termen and cilia suffused with purplish brown from apex to vein 2. Underside of fore wing and costal area of hind wing yellowish, the costal areas slightly irrorated with brown.

Ab. 1. Fore wing with series of dark points on the lines, the dark discoidal spot prominent, the area between medial and postmedial lines not filled in with brown on inner half.

Ab. 2. *fusciciliana*. Fore wing without brown discoidal spot or postmedial brown area.

Hab. Sierra Leone (*Morgan*), 1 ♀ type; S. Nigeria, Lagos, Ebute Meta (*Boag*), 1 ♀, Calabar (*Simpson*), 1 ♀, Aro (*Simpson*), 1 ♀; N. Nigeria, Zungeru (*Macfie*), 1 ♀, Borgu, Yelwa Lake (*Migeod*), 1 ♂; Lr. Guinea; Br. E. Africa, Taveta (*Rogers*), 2 ♀, Nairobi (*Crawshay*), 1 ♀, Eb Urru (*Betton*), 1 ♀; Br. C. Africa,

Mlanji Boma (*Neave*), 1 ♀, Ruo Valley (*Neave*), 1 ♂; Mozambique, Beira (*de Jersey*), 1 ♀; Natal, 1 ♀, Kimbolton (*Hutchinson*), 1 ♂, 1 ♀, Durban (*Gooch*), 1 ♀; Cape Colony (*Sir A. Smith*), 1 ♀; Mauritius (*Manders*), 1 ♀. *Exp.* 18–26 millim.

6862. Earias huegeli. (Plate CLXXXVII. fig. 9.)

Earias huegeli, Rogenh. Verh. zool.-bot. Ges. Wien, xx. p. 872 (1870); Kirby, Cat. Lep. Het. p. 282.

Head, tegulæ, and patagia white; thorax yellow-green with white dorsal streak; fore legs tinged with brown on inner side; abdomen white dorsally tinged with brown. Fore wing white; a yellow-green fascia from base between discal and submedian folds to end of cell, then with its lower edge somewhat oblique and diffused to termen below vein 6; medial line represented by an oblique greenish striga on costal area or spot below costa and oblique striga on inner area or spots above and below vein 1; postmedial line green, maculate, oblique from costa to discal fold, then inwardly oblique; subterminal line green, maculate, oblique from costa to vein 7; the termen and cilia at base green between veins 6 and 2. Hind wing semihyaline white, the termen tinged with brown from apex to vein 2. Underside of fore wing white tinged with brown.

Ab. 1. Thorax and fore wing with the green replaced by dull rufous; fore wing with the costal area slightly tinged with rufous, the inner area strongly suffused with rufous and almost concolorous with the fascia.

Ab. 2. Fore wing white tinged with rufous, the fascia almost obsolete.

Hab. Queensland, Warwick (*Turner*), 1 ♂, Moreton Bay (*Diggles*), 1 ♀; N. Australia, Port Darwin (*Buckland*), 1 ♀; N.S. Wales, Sydney (*Raynor*), 1 ♂, 1 ♀, Broken Hill (*Lower*), 1 ♂; Fiji (*Mathew*), 2 ♂, 1 ♀; Tahiti, Tauteia (*Nicholl*), 1 ♀; Gilbert Is., Apia (*de la Garde*), 1 ♀; Marquesas, Faton-Hiva I. (*J. J. Walker*), 1 ♀. *Exp.* 18–28 millim.

6863. Earias insulana.

Tortrix insulana, Boisd. Faun. Madag. p. 121, pl. 16. f. 9 (1833); Hmpsn. Moths Ind. ii. p. 133; Kirby, Cat. Lep. Het. p. 281; Staud. Cat. Lep. pal. p. 362.
Earias smaragdinana, Zell. K. Vet.-Akad. Handl. 1852, p. 79.
Earias siliquana, Herr.-Schäff. Schmett. Eur. ii. p. 448, Nyct. ff. 1–3 (1853).
Earias frondosana, Wlk. xxvii. 204 (1863); Butl. Ill. Het. B.M. vi. p. 14, pl. 105. f. 1.
Acontia xanthophila, Wlk. Journ. Linn. Soc., Zool. vii. p. 50 (1863).
Earias simillima, Wlk. xxxv. 1775 (1866); Kirby, Cat. Lep. Het. p. 282.
Earias chlorion, Rmbr. Cat. Lep. S. And. ii. pl. 15. f. 6 (1866).
Earias gossypii, Frauenf. Verh. zool.-bot. Ges. Wien, xvii. p. 791 (1867).
Earias anthophilana, Snell. Tijd. v. Ent. xxii. p. 96, pl. 8. f. 1 (1879); Kirby, Cat. Lep. Het. p. 282.
Earias tristrigosa, Butl. P. Z. S. 1881, p. 614; Kirby, Cat. Lep. Het. p. 282.
Earias dorsivitta, Staud. Iris, x. p. 165 (1897).

Head and thorax yellow-green mixed with some white; palpi white irrorated with red-brown except at base; frons white; antennæ red-brown; pectus and legs white, the fore tibiæ and tarsi irrorated with red-brown; abdomen white, dorsally slightly tinged with brown, the crests at base green. Fore wing yellow-green slightly irrorated with white, the costal edge white to near apex; a faint medial green line from below costa to median nervure, then inwardly oblique; postmedial line indistinct, green, oblique from costa to vein 6, then inwardly oblique; an indistinct rather diffused green subterminal line, oblique from costa to vein 7. Hind wing semihyaline white, the termen tinged with brown from apex to vein 2. Underside of fore wing white, tinged with brown except on inner area.

Ab. 1. *anthophilana*. Fore wing ochreous with the lines purplish green and distinct, a dark discoidal point.

Ab. 2. Fore wing with the costa and inner margin ochreous irrorated with purplish, the cilia purplish at tips.

Ab. 3. Fore wing with the area between the medial and postmedial lines filled in with purplish from vein 6 to inner margin.

Ab. 4. Similar but the band rufous, the cilia tinged with rufous at tips.

Ab. 5. *dorsivitta*. Fore wing with grey medial stripe.—Syria.

Hab. Spain, Iberia; Sicily; Canaries, Crete; N. Nigeria, Zungeru (*Macfie*), 1 ♂, 6 ♀; Egypt, Cairo, Zeller Coll. (*Sickenberger*), 3 ♂, 7 ♀, Gizeh (*Flower*), 1 ♂, 1 ♀; Abyssinia, Atbara (*Gerrard*), 1 ♂; Sokotra, Adho Dimellus (*O.-Grant*), 1 ♂; Br. E. Africa, Taveta (*Rogers*), 1 ♂, 2 ♀, Machakos (*Crawshay*), 1 ♂, Gwelil (*Betton*), 1 ♀; Br. C. Africa, Likoma (*de Jersey*), 1 ♂, 1 ♀; Mashonaland, Salisbury (*Marshall*), 1 ♂; Mozambique, Beira, Zambite (*Sheppard*), 1 ♂; Lorenço Marques, Delagoa Bay (*Kenrich*), 1 ♀; Transvaal, Piet Retief (*Morley*), 1 ♀, Warmbad (*Janse*), 2 ♀, Pretoria (*Janse*), 1 ♂, Johannesburg (*Cooke*), 1 ♀; Natal, Estcourt (*Hutchinson*), 1 ♂; Orange R. Colony, Bloemfontein (*Eckersley*), 1 ♂; Basutoland, Maseru (*Crawshay*), 1 ♂, Masite (*Crawshay*), 1 ♀; Cape Colony (*Sir A. Smith, Drége*), 3 ♂, Annshaw (*Miss F. Barrett*), 1 ♂; Mauritius, 1 ♂; Red Sea (*Meade-Waldo*), 1 ♀; Cyprus (*Miss Bate*), 1 ♀; Syria (*Lederer*), 1 ♂; Formosa (*Hobson*), 1 ♀; Punjab (*Hearsey, Horne*), 3 ♀, Almorah (*Boys*), 1 ♀ type *frondosana*, Kulu (*Hocking*), 1 ♀, Campbellpur (*Yerbury*), 3 ♂, Wuzeerabad (*Hearsey*), 1 ♂, Allahabad, 2 ♂, Moghal Sarai (*Betton*), 1 ♂; Biluchistan, Hubb R., 2 ♂ type *tristrigosa*; Sind, Karáchi (*Swinhoe*), 3 ♂, 1 ♀; Madras, Coimbatore (*Walhouse*), 1 ♂; Ceylon (*Pole*), 1 ♂, 1 ♀; Burma, Myingyan (*Watson*), 1 ♂, 1 ♀; Penang (*Ridley*), 1 ♂; Siam, 1 ♂ type *simillima*; Borneo, Sarawak (*Wallace*), type † *xanthophila* in Mus. Oxon.; Philippines, Manilla (*Banks*), 1 ♂; Celebes. *Exp.* 16–28 millim.

Larva. Hoffm. Raup. p. 288.

Food-plants: *Ceratonia siliqua* and *Gossypium herbaceum*; very destructive to the cotton-plant.

6864. Earias vernana.

Tortrix vernana, Hübn. Vögel u. Schmett. pl. 8 (1793); id. Eur. Schmett., Tort. f. 161; Dup. Lép. Fr. ix. p. 42, pl. 237. f. 5; Kirby, Cat. Lep. Het. p. 281; Staud. Cat. Lep. pal. p. 362.

Head and thorax white, the latter, except the tegulæ, slightly tinged with yellow-green; pectus and legs white, the tarsi brownish ringed with white; abdomen white, dorsally tinged with fuscous. Fore wing white irrorated with yellow-green, the terminal area suffused with green, the costal area whiter; a medial green line arising below costa and incurved in cell; postmedial line arising below costa, oblique to vein 6, then somewhat inwardly oblique; cilia green at base, white at tips. Hind wing white, the termen and base of cilia tinged with green from apex to vein 2. Underside of fore wing white, the disk suffused with brown, the terminal area and cilia tinged with green.

Ab. 1. Thorax and wings tinged with blue-green.

Hab. Germany, Zeller, Frey & Leech Colls., Pomerania, Siberia; Austria, Galicia; Hungary, Leech Coll.; Italy, Piedmont. *Exp.* 24 millim.

Larva. Kirby, Butt. & Moths Eur. p. 98; Hffm. Raup. p. 39.

Food-plant: *Populus alba*. 7–9.

Cocoon. Boat-shaped with a slight dorsal ridge in front.

6865. Earias parallela. (Plate CLXXXVII. fig. 10.)

Earias parallela, Lucas, Pr. R. Soc. Queensl. xiii. p. 73 (1898).
Earias chlorodes, Meyr. Trans. Ent. Soc. 1902, p. 44.

Head and thorax yellowish white slightly tinged with green; pectus and legs white; abdomen white dorsally tinged with brown. Fore wing yellowish white slightly tinged with green except on costal area, the termen and cilia more strongly tinged with green; rather diffused oblique medial, postmedial and subterminal green lines from below costa to inner margin. Hind wing semihyaline white, the termen tinged with brown; cilia white. Underside of fore wing white, tinged with brown except on inner area.

Hab. Queensland, Duaringa; N. Australia, Alexandria (*Stalker*), 1 ♂; W. Australia, Sherlock R. (*Clements*), 2 ♂, 1 ♀, Derby, 1 ♂, 2 ♀, Carnarvon; Victoria, Melbourne. *Exp.* 20–24 millim. Type † in Coll. Lucas.

*6866. Earias subviridis. (Plate CLXXXVII. fig. 11.)

Earias subviridis, Lucas, Pr. R. Soc. Queensl. xiii. p. 72 (1898).
Earias limonia, Meyr. Trans. Ent. Soc. 1902, p. 44.

♂. Head and thorax white, the latter tinged with very pale green; palpi and tarsi tinged with reddish brown; abdomen white dorsally tinged with ochreous. Fore wing silky white with a bluish green tinge rather deeper towards termen; fine oblique

slightly darker medial and postmedial lines, the former bent outwards to inner margin. Hind wing ochreous white, the costal area tinged with bluish green. Underside uniform ochreous white.

Hab. Queensland, Brisbane in Coll. Turner; N.S. Wales, Richmond R. *Exp.* 28 millim.

6867. Earias latimargo, n. sp. (Plate CLXXXVII. fig. 12.)

Head and thorax yellow-green; palpi chocolate-brown, whitish at base; pectus whitish; legs chocolate-brown, the tarsi ringed with white; abdomen whitish suffused with brown except at base. Fore wing yellow-green, the costal edge pale pinkish; a small lunulate chocolate-brown discoidal spot; a broad terminal chocolate-brown band, its inner edge slightly angled inwards at discal fold and incurved below vein 3. Hind wing white tinged with brown especially on terminal area. Underside of fore wing white tinged with brown especially on costal and terminal areas.

Hab. Christmas I., Flying Fish Cove (*Andrews*), 1 ♂, 4 ♀ type. *Exp.* 18 millim.

6868. Earias cupreoviridis.

Xanthoptera cupreoviridis, Wlk. Trans. Ent. Soc. (3) i. p. 92 (1862).
Earias chromataria, Wlk. xxvii. 204 (1863); Moore, Lep. Ceyl. iii. p. 490, pl. 208. f. 5; Hmpsn. Moths Ind. ii. p. 133; Kirby, Cat. Lep. Het. p. 282.
Earias fulvidana, Wllgrn. Wien. Ent. Mon. vii. p. 143 (1863); Kirby, Cat. Lep. Het. p. 282.
Earias fervida, Wlk. xxxv. 1774 (1866).
Earias limbana, Snell. Tijd. v. Ent. xxii. p. 97, pl. 8. f. 2 (1879).

Head white; palpi with chocolate-brown mixed; sides of frons brown; antennæ brown ringed with white; thorax yellow-green, the shoulders and front of prothorax yellow; pectus and legs white, the fore legs chocolate-brown irrorated with white in front, the mid tibiæ suffused with red, the tarsi brown ringed with white; abdomen white. Fore wing yellow-green, the costal area suffused with crimson to middle, expanding into a patch in end of cell with a slight medial line on it angled outwards below costa and ending at discal fold and a small red-brown or red discoidal spot; the termen red-brown expanding into triangular patches at discal and submedian folds and inner margin, with patches of reddish yellow before it at apex, middle, and above inner margin; cilia red-brown. Hind wing semihyaline white, the termen towards apex slightly tinged with ochreous. Underside of fore wing and costal area of hind wing white tinged with ochreous.

Ab. 1. Fore wing without crimson on costal area, the medial line replaced by a point in cell.

Hab. Sierra Leone (*Foxcroft*), 1 ♂, 1 ♀; N. Nigeria, Zungeru (*Macfie*), 1 ♂, 1 ♀, Borgu, Yelwa Lake (*Migeod*), 1 ♀; Br. E. Africa, Nairobi (*Crawshay*), 1 ♀; Uganda, Gondokoro (*Reynes-Cole*), 2 ♀; Rhodesia, Bulawayo (*Eyles*), 1 ♀; Transvaal,

Pretoria (*Janse*), 2 ♂, 2 ♀; Natal, Howich (*Cregoe*), 1 ♀, Tugela R., Bonds Drift (*Reynolds*), 1 ♂, Kimbolton (*Hutchinson*), 1 ♀, Durban (*Gooch*), 1 ♂, 1 ♀; Japan, Tokio (*Fenton*), 1 ♀, Yokohama (*Jonas, Pryer*), 3 ♂, 1 ♀; Corea, Gensan (*Leech*), 1 ♂; C. China, Chusan Is. (*J. J. Walker*), 1 ♀, Ichang (*Mrs. Pratt*), 1 ♂, 1 ♀; Punjab (*James*), 1 ♀, Almorah (*Boys*), 1 ♀, Kulu (*Hocking*), 1 ♂, 2 ♀; Bombay, 3 ♂; Ceylon, Colombo (*Nietner, Mackwood*), 4 ♂, 2 ♀ type *chromataria*; Andamans (*Rogers*), 1 ♂, 2 ♀; Palawan, Pto. Princesa (*Doherty*), 1 ♂, 2 ♀; Java (*Horsfield, Muller*), 4 ♂, 1 ♀ type *fervida*; Sula (*Wallace*), 1 ♂. *Exp.* 18–22 millim. Type † in Mus. Oxon., and type † *fulvidana* in Mus. Stockholm.

6869. Earias glaucescens. (Plate CLXXXVII. fig. 13.)

Paraxestis glaucescens, Hmpsn. A. M. N. H. (7) xvi. p. 585 (1905).

♀. Head and thorax olive-grey with a slight reddish tinge; palpi, tibiæ, and tarsi rufous; abdomen ochreous tinged with rufous. Fore wing olive-green suffused with reddish and with a silky gloss; very faint traces of slightly curved ante- and postmedial rufous lines; termen and cilia deeper red. Hind wing ochreous tinged with red especially on terminal area.

Hab. S. Nigeria, Old Calabar (*Crompton*), 1 ♀ type. *Exp.* 22 millim.

6870. Earias roseifera. (Plate CLXXXVII. fig. 14.)

Earias roseifera, Butl. Trans. Ent. Soc. 1881, p. 18; Kirby, Cat. Lep. Het. p. 282.

Earias erubescens, Staud. Rom. Mém. iii. p. 175 (1887); Kirby, Cat. Lep. Het. p. 282; Staud. Cat. Lep. pal. p. 362.

Head and thorax yellow-green; palpi dark brown irrorated with white; antennæ dark brown ringed with white; pectus and legs white and brown mixed; abdomen whitish suffused with fuscous brown. Fore wing yellow-green with a more or less developed patch of pink suffusion in and round end of cell; cilia dark reddish brown. Hind wing whitish more or less strongly tinged with brown. Underside of both wings tinged with brown except at apex.

Ab. 1. Fore wing with small brown discoidal spot.

Ab. 2. Fore wing without any pink suffusion.

Ab. 3. Fore wing suffused with pink from near base to towards termen except on inner area.

Hab. E. Siberia, Ussuri; Japan, Oiwaké, 1 ♀, Gifu (*Pryer*), 1 ♂, 2 ♀, Tokio (*Fenton*), 2 ♂ type, Yokohama (*Pryer*), 2 ♀; C. China, Kiukiang (*Pryer*), 1 ♀; W. China, Chang-yang (*Pratt*), 1 ♀, Omei-shan, 1 ♀; Assam, Khásis, 1 ♀. *Exp.* 20–24 millim.

6871. Earias pudicana.

Earias pudicana, Staud. Rom. Mém. iii. p. 174, pl. 8. f. 10 (1887); Kirby, Cat. Lep. Het. p. 281; Staud. Cat. Lep. pal. p. 362.
Earias pupillana, Staud. Rom. Mém. iii. p. 176 (1887); Kirby, Cat. Lep. Het. p. 282; Staud. Cat. Lep. pal. p. 362.

Head and thorax yellow-green; palpi brown irrorated with white; pectus and legs white, the latter irrorated with brown; abdomen white. Fore wing yellow-green, the costal edge white, pink towards base; cilia red-brown, white at tips. Hind wing semihyaline white. Underside of fore wing whitish.

Ab. 1. *pupillana*. Fore wing with round brown discoidal spot.

Hab. E. Siberia, Ussuri; Japan, Hakodaté (*Andrews*), 1 ♀, Tsuruga (*Leech*), 1 ♀, Yokohama (*Pryer*), 2 ♀; C. China, Shanghai (*Fortune*, *J. J. Walker*), 3 ♀, Kiukiang (*Pryer*), 1 ♂, Mingpoo (*Leech*), 1 ♀; W. China, Moupin (*Kricheldorf*), 1 ♂; Punjab, Kulu (*Hocking*), 1 ♀, Kangra (*Dudgeon*), 2 ♀. *Exp.* 20–24 millim.

Cocoon. Silken, elliptical with a slight dorsal ridge in front.

6872. Earias fabia.

Noctua fabia, Stoll, Pap. Exot. iv. pl. 355. f. H (1782); Hmpsn. Moths Ind. ii. p. 133; Kirby, Cat. Lep. Het. p. 282.
Tinea vitella, Fabr. Ent. Syst. iii. 2, p. 293 (1794).
Aphusia speiplena, Wlk. xii. 770 (1857); Moore, Lep. Ceyl. iii. p. 490, pl. 208. f. 6.
Micra partita, Wlk. xxxiii. 799 (1865).

Head, tegulæ, and patagia white, the tegulæ and patagia tinged with flesh-colour; thorax yellow-green with white dorsal stripe; pectus and legs white, the fore tibiæ and tarsi tinged with brown; abdomen white, dorsally slightly tinged with brown. Fore wing white tinged with flesh-colour, a yellow-green fascia from base between discal and submedian folds to end of cell, then with its lower edge somewhat oblique and diffused to termen below vein 6; cilia rufous at base between veins 6 and 3. Hind wing semihyaline white, the termen tinged with brownish ochreous from apex to vein 2. Underside of fore wing white tinged with brown.

Ab. 1. *speiplena*. Tegulæ and patagia not tinged with flesh-colour, the latter slightly tinged with green; fore wing not tinged with flesh-colour, the green fascia widening to termen between veins 6 and 2 and with the cilia beyond it green, a short green streak on inner margin before middle, the terminal area slightly tinged with green towards apex and tornus.

Hab. Punjab, Wuzeerabad (*Hearsey*), 3 ♂, 1 ♀ type *speiplena*, Allahabad, 1 ♂, Cawnpore (*Betton*), 1 ♂; Bombay, 2 ♂, 3 ♀, Bandra (*Jayaker*), 1 ♂; Madras, Gooty (*Campbell*), 1 ♂, Coimbatore (*Walhouse*), 1 ♂; Ceylon (*Green*), 1 ♂; Burma, Myingyan (*Watson*), 1 ♀; Andamans (*Rogers*), 1 ♂; Java (*Horsfield*), 1 ♂ type *partita*; Fiji (*Matthew*), 2 ♂. *Exp.* 22–28 millim.

*6873. Earias syriacana. (Plate CLXXXVII. fig. 15.)

Earias syriacana, Bartel, Iris, xvi. p. 215 (1903).

♀. Head and tegulæ white, the latter tinged with green at tips; antennæ ringed with brown; thorax white suffused with yellow-green; pectus and legs white; abdomen white dorsally suffused with fuscous except at base. Fore wing yellow-green thickly irrorated with white, the costa white; cilia green, white at tips. Hind wing white. Underside of both wings white tinged with green except at costa of fore wing.

Hab. Syria, Beirut, type † ♀ in Coll. Püngeler. *Exp.* 22 millim.

6874. Earias chlorana.

Tortrix chlorana, Linn. Faun. Suec. p. 343 (1761); Hübn. Eur. Schmett., Tortr. f. 160; Dup. Lép. Fr. ix. p. 38, pl. 237. f. 4; Steph. Ill. Brit. Ent., Haust. iv. p. 68; Kirby, Cat. Lep. Het. p. 281; Staud. Cat. Lep pal. p. 362.
Phalæna viride, Retz. Gen. Spec. Ins. p. 52 (1783).
Earias flavimargo, de Joan. Bull. Soc. Ent. Fr. 1908, p. 46, & Ann. Soc. Ent. Fr. 1908, pl. 15. f. 7.
Earias hemixantha, de Joan. Ann. Soc. Ent. Fr. 1908, p. 752, pl. 15. f. 8.

Head and tegulæ white, the tips of tegulæ and thorax yellow-green; palpi and antennæ tinged with brown; pectus and legs white, the fore and mid tibiæ and tarsi tinged with brown;

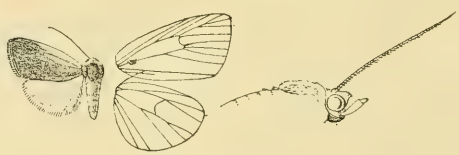


Fig. 190.—*Earias chlorana*, ♂. ½.

abdomen white dorsally tinged with fuscous. Fore wing yellow-green, the costal area white to beyond middle, the costal edge brownish towards base. Hind wing semihyaline white, the termen very slightly tinged with green from apex to vein 2. Underside of fore wing white, the terminal half tinged with green.

Ab. 1. *flavimargo*. Fore wing with the cilia reddish yellow at base, brown at middle and white at tips.—Britany.

Ab. 2. *hemixantha*. Fore wing with the terminal area broadly suffused with orange-yellow except at costa.

Hab. Britain; France, Sand Coll., Britany (*de Joannis*), Napoul (*Walsingham*); Germany, Zeller, Frey & Leech Colls.; Austria; Hungary; Switzerland, Valais, Frey Coll.; Italy, Capri (*C. L. Browne*); Russia, Livonia, Zeller Coll.; Asia Minor, Pontus; Siberia. *Exp.* 20–24 millim.

Larva. Meyr. Brit. Lep. p. 35; Barrett, Lep. Brit. ii. p. 181, pl. 64. f. 4. Whitish sometimes tinged with pink, narrow dorsal, broad subdorsal, lateral and spiracular pale red-brown lines, the subdorsal line darker on somites 2–5 and front of 6 and 12; subspiracular line white; pairs of rather pointed tubercles on somites 3, 4, 6, and 12; head pale green marked with black.

Food-plant: *Salix viminalis*; 7, 8; pupating among leaves spun together.

6875. Earias chlorophyllana. (Plate CLXXXVII. fig. 16.)

Earias chlorophyllana, Staud. Iris, iv. p. 249 (1891); Kirby, Cat. Lep. Het. p. 913; Staud. Cat. Lep. pal. p. 362.
Earias turana, Gr. Ann. Mus. Pétersb. iv. p. 461 (1899).

♂. Head and thorax yellow-green; palpi white with some brown towards tips; frons white; antennæ brown ringed with white; pectus and legs white, the tarsi brown ringed with white; abdomen white dorsally faintly tinged with brown. Fore wing yellow-green, the costal area yellowish white; cilia orange-yellow at tips. Hind wing semihyaline white, the termen slightly tinged with rufous from apex to vein 2. Underside of fore wing white tinged with brown except on costal and inner areas, the cilia green at base, yellowish at tips.

Hab. Syria, Antioch, Mardin, 1 ♂; Khurdistan; W. Turkestan, Turcomania. *Exp.* 20 millim.

6876. Earias smaragdina. (Plate CLXXXVII. fig. 17.)

Earias smaragdina, Butl. Trans. Ent. Soc. 1886, p. 388; Kirby, Cat. Lep. Het. p. 282.

Head, tegulæ, and prothorax greenish yellow, the rest of thorax yellow-green; palpi and frons white tinged with rufous; antennæ brown; pectus and legs white slightly tinged with rufous, the fore tibiæ and tarsi brown, the latter ringed with white; abdomen white, dorsally slightly tinged with brown. Fore wing yellow-green, the costa white, the costal area yellowish towards base; cilia white at tips. Hind wing semihyaline white, the termen faintly tinged with brown from apex to vein 2. Underside of fore wing white tinged with brown, the cilia greenish.

Hab. Queensland (*Waller*), 1 ♀, Peak Downs, 1 ♀ type, Brisbane (*Turner*), 3 ♂, 1 ♀; N.S. Wales (*Arnold*), 2 ♀. *Exp.* 18–22 millim.

6877. Earias ochrophylla. (Plate CLXXXVII. fig. 18.)

Earias ochrophylla, Turner, P. Linn. Soc. N.S.W. xxvii. p. 108 (1902).

Head and thorax white, the latter, except the tegulæ, slightly tinged with greenish yellow; pectus, legs, and abdomen white, the last slightly tinged with brown on dorsum. Fore wing very pale greenish yellow, the costal area white. Hind wing semihyaline

white tinged with brown except on costal area; cilia white. Underside of fore wing pale brown.

Hab. W. Australia, Derby (*Lower*), 2 ♀; N.S. Wales (*Arnold*), 1 ♂, Broken Hill (*Lower*), 1 ♀. *Exp.* 20 millim.

Genus **HYLOPHILODES**, nov.

Type, *H. orientalis.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head, slender, the 3rd long; frons smooth; eyes large, round; antennæ of male almost simple; thorax clothed with hair only and without crests; tibiæ moderately fringed with hair; abdomen with slight hairy crests on two basal segments only, the male with large lateral scale-fans at base. Fore wing with the apex produced and acute, the termen almost straight and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8, 9, 10 stalked, 10 from beyond 7; 11 from cell. Hind wing with veins 3, 4 from cell in male, shortly stalked in female; 5 fully developed from angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the subterminal line strongly angled outwards below vein 7 and at middle ..... *orientalis.*
B. Fore wing with the subterminal line very indistinct and excurved below vein 7 and at middle ..... *rubromarginata.*

6878. **Hylophilodes orientalis.**

Halias orientalis, Hmpsn. Moths Ind. ii. p. 132 (1894).

♂. Head and thorax olive-green shading into white on metathorax, the dorsum of thorax with slight rufous streak; palpi, frons, and antennæ rufous; pectus and legs white, the latter suffused with rufous; abdomen white, dorsally suffused with yellow at base. Fore wing white suffused with pale yellow-green, the

Fig. 191.—*Hylophilodes orientalis*, ♂. ½.

costal edge pale rufous; antemedial line yellow, defined on inner side by green and on outer by white, straight; a slight green discoidal lunule; postmedial line yellow, defined on inner side by white and on outer by green, straight, very oblique from costa near apex to middle of inner margin; a slight green subterminal line strongly angled inwards at vein 6 and below 3 and outwards above veins 6 and 3 and to tornus; cilia deep crimson; the hair on inner margin yellow from antemedial line to tornus. Hind wing white with a faint green tinge except on costal area, the inner area clothed with yellow hair; the underside pure white with series of blackish points on the cilia from apex to vein 3.

♀. Abdomen without yellow at base; fore wing with the cilia yellow; hind wing uniform pure white.

Hab. Assam, Khásis, 1 ♂, 1 ♀, Nága Hills (*Doherty*), type † ♀ in Coll. Rothschild. *Exp.* 38 millim.

*6879. Hylophilodes rubromarginata.

(Plate CLXXXVII. fig. 19.)

Hylophila rubromarginata, Beth.-Baker, Nov. Zool. xiii. p. 219 (1906).

♀. Head and tegulæ pale olive-green; 3rd joint of palpi and antennæ rufous; thorax white faintly tinged with green and with some brown in front; fore femora and tibiæ fiery red on inner side, the tarsi fiery red; abdomen white. Fore wing white tinged with yellow-green, the costal edge fiery red; a fine inwardly oblique green antemedial line from costa to inner margin; a very oblique postmedial yellow line defined by green on outer side from costa towards apex to middle of inner margin; a faint green subterminal line excurved below vein 7 and at middle; cilia fiery red. Hind wing white faintly tinged with green.

Hab. Br. New Guinea, Mt. Kebea (*Pratt*), type † ♀ in Coll. Bethune-Baker, Aroa R. *Exp.* 36 millim.

Genus **HYLOPHILA.**

	Type.
Hylophila, Hübn. Verz. p. 396 (1827)	*prasinana.*
Halias, Treit. Schmett. Eur. vii. p. 227 (1829)	*prasinana.*
Chloephora, Steph. Syst. Cat. Brit. Ins. pt. 2, p. 168 (1829)	*prasinana.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about vertex of head, slender and fringed with long sparse hair in front, the 3rd joint long; frons smooth; eyes large, round; antennæ of male almost simple; thorax clothed with hair only and without crests; tibiæ moderately fringed with hair; abdomen without crests. Fore wing with the apex produced and acute, the termen obliquely curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 shortly stalked or from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Retinaculum of male a tuft of hair from below median nervure.

6880. **Hylophila bicolorana.**

Tortrix prasina, Poda, Mus. Græc. p. 93, pl. 2. f. 10 F. (1761), nec *prasinana*, Linn.

Phalæna bicolorana, Fuessl. Verz. p. 41 (1775); Staud. Cat. Lep. pal. p. 362; Kirby, Cat. Lep. Het. p. 280.

Pyralis prasinana, Fabr. Syst. Ent. p. 645 (1775), nec Linn.

Tortrix quercana, Schiff. Wien. Verz. p. 125 (1776); Hübn. Eur. Schmett., Tort. p. 159; Dup. Lép. Fr. ix. p. 32, pl. 237. f. 1; Curt. Brit. Ent. xii. p. 575; Steph. Ill. Brit. Ent., Haust. iv. p. 67.

Head and thorax bright yellow-green; palpi pink, white on inner side; lower part of frons white with two pink points;

antennæ pink; tegulæ white at base; pectus, legs, and abdomen white, the fore tibiæ slightly tinged with white. Fore wing bright yellow-green slightly irrorated with white, the costal edge white, the inner margin narrowly white; antemedial line fine, white, very oblique from below costa above end of cell to inner margin;

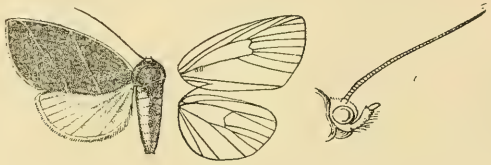


Fig. 192.—*Hylophila bicolorana*, ♂. ½.

postmedial line fine, white, very oblique from costa towards apex to inner margin; cilia white. Hind wing pure semihyaline white.

Hab. Britain; France, Sand Coll.; Denmark; Germany, Zeller, Frey, and Leech Colls.; Austria; Hungary; Switzerland; Spain; Italy; Turkey; Sweden; Russia; Armenia; Asia Minor; Syria, Leech Coll. *Exp.* 38–50 millim.

Larva. Meyr. Brit. Lep. p. 36; Barrett, Lep. Brit. ii. p. 179, pl. 64. f. 6.

Smooth, green, the 3rd segment with prominent dorsal hump tipped with yellow; a yellow subdorsal line on thoracic somites, the abdominal somites with oblique yellow lateral bars; spiracular line pale yellow or whitish, raised and very prominent on 2nd and 3rd somites; head and legs dull whitish. Food-plant: Oak. 9–6.

Cocoon. Silky, boat-shaped, ribbed.

Sect. II. Retinaculum of male bar-shaped from subcostal nervure.

A. Fore wing with subterminal line.
  a. Fore wing with broad oblique postmedial pink band; hind wing pink in male ..... *craeffti.*
  b. Fore wing without pink postmedial band; hind wing yellow in male ..... *prasinana.*
B. Fore wing without subterminal line; hind wing semihyaline white in male ..... *sylpha.*

6881. **Hylophila craeffti.**

(Plate CLXXXVII. figs. 20 ♂, 21 ♀.)

Hylophila kraeffti, Gräser, Berl. Ent. Zeit. xxxii. p. 110 (1888); Staud. Cat. Lep. pal. p. 362.
Hylophila magnifica, Leech, Entom. xxiii. p. 83 (1890); Kirby, Cat. Lep. Het. p. 280.

♂. Head and thorax pale olive-green, the tips of patagia and subdorsal stripes on thorax pink; palpi and antennæ pink, the latter with the basal joint white in front; pectus whitish; legs suffused with pink; abdomen dorsally pink, ventrally brownish white. Fore wing olive-green, the terminal area paler; the costal

and inner areas pink, broadly except at base and towards termen; a broad oblique postmedial pink band followed by some olive-green before the oblique white subterminal line which arises from apex; termen and cilia pink. Hind wing pink, the interspaces pale; cilia white at tips; the underside with the costal area and cell whitish to middle.

♀. Head and thorax yellow-green mixed with some white; abdomen ochreous with white segmental lines. Fore wing yellow tinged with green, the costa white faintly tinged with pink, the antemedial line on outer side and the postmedial line on inner side defined by green; cilia white slightly chequered with pink. Hind wing white, the veins and inner area tinged with ochreous.

Hab. E. Siberia, Amurland, Khabarovka, type † ♂, ♀ in Coll. Græser; W. China, Chang-yang (*Pratt*), 1 ♂ type *magnifica*. *Exp.* 34 millim.

6882. **Hylophila prasinana.**

Tortrix prasinana, Linn. Faun. Suecica, p. 342 (1761); Hübn. Eur. Schmett., Tort. f. 158; Dup. Lép. Fr. ix. p. 35, pl. 237. ff. 2, 3; Mill. Icones, iii. pl. 116. ff. 1, 2; Möbius, Iris, xviii. pl. ii. ff. 2, 3; Kirby, Cat. Lep. Het. p. 279; Staud. Cat. Lep. pal. p. 362.
Pyralis fagana, Fabr. Spec. Ins. ii. p. 276 (1781).
Phalæna viridis-lineata, Retz. Gen. Spec. Ins. p. 45 (1783).
Pyralis sylvana, Fabr. Ent. Syst. iii. (2) p. 244 (1794).
Hylophila millierei, Capr. C. R. Soc. Ent. Belg. xxvii. p. xcix (1883).

♂. Head and thorax yellow-green, the upper edge of patagia and dorsum of thorax with white streaks; palpi and antennæ pink; pectus white, green in front; legs pink, white towards base; abdomen white dorsally suffused with yellow. Fore wing yellow-green, the costal edge pink, diffused on to costal area towards apex, the inner area suffused with pink except towards base; antemedial line green slightly defined on inner side by white, very oblique from subcostal nervure near end of cell to vein 1; postmedial line

Fig. 193.—*Hylophila prasinana*, ♂. ½.

green, defined on outer side by white, very oblique from below costa towards apex to middle of inner margin; subterminal line white, oblique, slightly bent outwards to apex; cilia pink with a white line at base. Hind wing yellow; cilia pale pink, white at tips from apex to vein 2.

♀. Abdomen white, tinged with brown at base. Fore wing with the costal edge white, the inner margin yellow except towards

base, the ante- and postmedial lines strongly defined by silvery white. Hind wing pure white.

Ab. 1. ♂. Fore wing without pink on costal area towards apex, the inner margin yellow.

Ab. 2. ♂. Fore wing with the postmedial line pink.

Ab. 3. ♀. Almost wholly white.

Hab. Britain; France, Sand Coll.; Germany, Zeller, Frey, & Leech Colls.; Austria; Hungary; Switzerland; Italy; Russia, Sarepta; W. Siberia; E. Siberia, Amurland; Japan, Oiwake, 1 ♀, Chinzenji (*Lewis*), 1 ♀, Yokohama (*Pryer*), 1 ♂. *Exp.* 34–46 millim.

Larva. Meyr. Brit. Lep. p. 36; Barrett, Lep. Brit. ii. p. 176, pl. 64. f. 5.

Pale green irrorated with yellow; subdorsal line yellow; 2nd somite red in front. Food-plants: Oak, Beech, Hazel, etc. 7–9. The imago makes a stridulatory noise when flying.

6883. **Hylophila sylpha.**

Hylophila sylpha, Butl. Ill. Het. B.M. iii. p. 10, pl. 43. f. 10 (1879); Kirby, Cat. Lep. Het. p. 280; Staud. Cat. Lep. pal. p. 362.

Head and thorax pale yellow-green, shading to white on metathorax; palpi white tinged with ochreous; antennæ ochreous; pectus and legs white, the femora tinged with green, the fore tibiæ and tarsi ochreous; abdomen white. Fore wing pale yellow-green irrorated with white, the costa and inner margin except towards base ochreous tinged with pink; antemedial line white, defined on outer side by green, very oblique from below costa beyond the cell to vein 1 near base; postmedial line white, defined on inner side by green, very oblique from costa near apex to inner margin beyond middle; the termen and cilia white tinged with pink. Hind wing pure semihyaline white.

Hab. Japan, Tokio (*Fenton*), 2 ♀, Yokohama (*Jonas*, *Pryer*), 2 ♂, 3 ♀ type. *Exp.* 40–44 millim.

Genus **PARHYLOPHILA**, nov.

Type, *P. celsiana*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to middle of frons and moderately scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed with hair and scales mixed and without crests; tibiæ moderately fringed with hair; abdomen with large crest on basal segment. Fore wing with the termen excised below apex and excurved at middle; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

*6884. **Parhylophila celsiana.**

Chloephora celsiana, Staud. Rom. Mém. iii. p. 177, pl. 10. f. 1 (1887); id. Cat. Lep. pal. p. 362.

Head and tegulæ white; palpi brown at sides; antennæ brown;

thorax emerald green, the outer edge of patagia white, the metathorax white with two green spots; pectus and legs white suffused with brown; abdomen white suffused with brown except at base. Fore wing emerald green, the costal edge white suffused with brown; an oblique white patch on basal inner area; postmedial

Fig. 194.—*Parhylophila celsiana*, ♂. ½.

line white, defined on inner side by black below vein 3 and expanding on outer side into a triangular white patch with its outer part thickly irrorated with black, excurved from costa to vein 5, then incurved; cilia dark brown, white at tips. Hind wing white suffused with brown; cilia white with a brown line near base. Underside of both wings white suffused with brown.

Hab. E. Siberia, Amurland, Raddé (*Korb*) in Coll. Püngeler.
Exp. ♂ 28, ♀ 34 millim.

Genus **CHLORIOLA**, nov.

Type, *C. gratissima*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to middle of frons and broadly rounded with scales in front, the 3rd short, oblique and moderately scaled in male, longer in female; frons smooth, with ridge of hair above; eyes large, round; antennæ of male ciliated; thorax clothed with hair and scales mixed and without crests; tibiæ smoothly scaled; abdomen with dorsal crests on two basal segments, long in male. Fore wing with the apex slightly produced and acute, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 and 10 anastomosing with 8 to form the long narrow areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

6885. **Chloriola gratissima.**

Nolasena gratissima, Wlk. Journ. Linn. Soc., Zool. vii. p. 75 (1864); Swinh. Cat. Het. Mus. Oxon. ii. p. 590.

Head, tegulæ, and front of thorax yellow-green, the rest of thorax blue-green; palpi orange with blackish band on 2nd joint and the 3rd joint blackish; frons orange; antennæ brown, the shaft silvery-white towards base and with white bar between their bases; pectus white, the fore legs orange, the mid and hind tibiæ and tarsi tinged with yellow; abdomen sap-green, some yellow at sides, the ventral surface white towards base, yellow towards extremity. Fore wing blue-green with a whitish gloss, the costal edge fulvous; antemedial line fine, whitish defined on outer side by fulvous, slightly incurved below costa and excurved

below the cell; postmedial line just beyond the cell, whitish defined on inner side by fulvous, oblique, slightly incurved at discal fold and below vein 4; some white striæ on costa towards apex; a rounded fulvous apical patch defined by white and with slight black streaks on it; a terminal series of black points defined by white; cilia fulvous at tips. Hind wing sap-green, the apical area

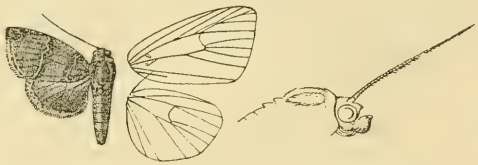


Fig. 195.—*Chloriola gratissima*, ♂. ½.

and cilia fulvous red; terminal black points slightly defined by white on veins 6 to 2. Underside of both wings yellow suffused with red, the inner area whitish.

Hab. SINGAPORE (*Ridley*), 1 ♂, 1 ♀; BORNEO, Sarawak (*Wallace*), 1 ♀. *Exp.* 24–26 millim.

Genus **ARIOLA**.

	Type.
Ariola, Wlk. xii. 768 (1857)	*cœlisigna*.

Proboscis fully developed; palpi porrect, the 2nd joint projecting about the length of head and broadly fringed with hair above and below towards extremity, the 3rd short; frons smooth; eyes large, round; antennæ of male almost simple; thorax clothed almost entirely with scales and without crests; fore and mid tibiæ moderately fringed with hair; abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with veins 3, 4 stalked; 5 fully developed from just above angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

6886. Ariola cœlisigna.

Ariola cœlisigna, Wlk. xii. 769 (1857); Hmpsn. Moths Ind. ii. p. 368.
Ariola ransonneti, Feld. Reis. Nov. pl. 108. f. 1 (1874).

Head and thorax sap-green, the palpi in front, tips of tegulæ, and the thorax tinged with rufous; pectus and legs whitish, the fore tibiæ and tarsi chocolate-brown ringed with white; abdomen grey-brown, the ventral surface whitish, the basal crest tipped with white. Fore wing with the costal area deep sap-green, the inner area paler and yellower green; a silvery white fascia diffused below from base of costa to middle of submedian fold, then oblique to apex; a purple fascia defined above by white on base of inner margin; a minutely waved whitish subterminal line, excurved to vein 2, then incurved, the area beyond it purple with slight dark

marks beyond the line except towards costa and a streak in submedian fold; a fine dark terminal line slightly defined on inner side by white; cilia purple at base, brown at tips. Hind wing

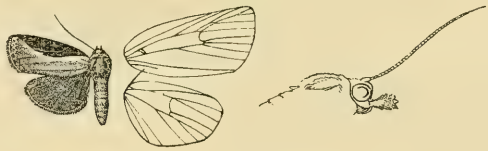


Fig. 196.—*Ariola cœlisigna*, ♂. ½.

fuscous brown, the cilia whitish at tips; the underside whitish, the costal and terminal areas suffused with fuscous brown.

Hab. Assam, Khásis, 1 ♂; Ceylon (*Thwaites*), 2 ♂, 1 ♀ type, Colombo (*Nietner*), 1 ♀, Kandy (*Green*), 1 ♀, Madulsima (*B. Fletcher*), 1 ♀; Burma, Rangoon (*Scott*), 1 ♂; Singapore (*Shelford, Ridley*), 1 ♂, 1 ♀; Borneo, Sarawak (*Wallace*), 2 ♀; Philippines; Pulo Laut (*Doherty*), 1 ♀; Bali (*Doherty*, 1 ♂, 1 ♀; Louisiades, St. Aignan (*Meek*), 2 ♀. *Exp.* 18–30 millim.

Genus **CHLOROZADA**, nov.

Type, *C. verna*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and moderately scaled, the 3rd about twice as long as the 2nd; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed with scales and hair mixed and without crests; tibiæ slightly fringed with hair; abdomen with dorsal crests on two basal segments only. Fore wing with the apex rectangular, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Hind wing flesh-red.
  a. Fore wing with dentate white subterminal line ..... *pyrites*.
  b. Fore wing with indistinct green subterminal line excurved below vein 7 and at middle ..... *prasina*.
B. Hind wing pale ochreous yellow.
  a. Hind wing with the inner and terminal areas not suffused with brown ..... *metaleuca*.
  b. Hind wing with the inner and terminal areas suffused with brown ..... *verna*.
C. Hind wing brown ..... *endophæa*.

6887. **Chlorozada pyrites**, n. sp. (Plate CLXXXVII. fig. 22.)

♀. Head and thorax blue-green; palpi and frons brown mixed with white; antennæ brown ringed with white towards base; pectus and legs white, the tibiæ with brown mixed, the tarsi banded with brown; abdomen flesh-red, the basal crest green, the ventral surface white. Fore wing blue-green, the costal edge fuscous; antemedial line white, defined on outer side by black towards costa,

oblique, waved, incurved in cell and submedian fold; postmedial line white defined on inner side by black towards costa, slightly excurved below costa and strongly beyond upper and lower angles of cell, then incurved and waved; some white points on costa towards apex; subterminal line white, somewhat maculate towards costa, dentate below discal fold and ending at tornus; a series of black points on termen from apex to discal fold; cilia fuscous, whitish towards tornus. Hind wing flesh-red; cilia whitish at tips. Underside of fore wing brownish red, the inner area whitish, some white points on costa towards apex; hind wing white faintly tinged with red.

Hab. Gold Coast, Kumasi (*Whiteside*), 1 ♀ type. *Exp.* 28 millim.

6888. **Chlorozada prasina**, n. sp. (Plate CLXXXVII. fig. 23.)

♀. Head and thorax yellow-green; palpi and frons red-brown irrorated with white; antennæ brown, ringed with white at base; pectus and legs white, the tibiæ and tarsi irrorated with red-brown; abdomen flesh-red, the ventral surface white. Fore wing yellow-green, the costal edge brownish; an oblique subbasal black striga from costa and some brown at base of inner margin; antemedial line black defined on inner side by white, incurved in cell and slightly bent inwards to costa and inner margin; postmedial line black defined on outer side by white, sinuous, oblique from costa to vein 6, then nearly erect; some white points on costa towards apex; faint traces of a dark subterminal line, excurved below vein 7 and at middle and ending at tornus; cilia tinged with brown at tips. Hind wing flesh-red, the inner area suffused with brown, the cilia rather yellower. Underside of fore wing purple-red, the costa brownish, the inner area ochreous; hind wing ochreous with the termen tinged with purple.

Hab. Gold Coast, Kumasi (*Whiteside*), 1 ♀ type. *Exp.* 28 millim.

6889. **Chlorozada metaleuca.**

Carea metaleuca, Hmpsn. A. M. N. H. (7) xvi. p. 598 (1905), ♀.
Erizada esmeralda, Hmpsn. P. Z. S. 1910, p. 415, pl. xxxvi. f. 16, ♂.

♂. Head and thorax pale emerald green; pectus and legs white; abdomen brownish ochreous, ventrally whitish. Fore wing pale emerald green; a subbasal black point on costa; antemedial line fine, white defined on outer side by a black striga from costa, slightly angled outwards below costa, then oblique; a minute black discoidal point; postmedial line fine, white, defined on inner side by a black striga from costa, slightly bent outwards below costa, then somewhat excurved and incurved below vein 4; the costa towards apex rufous with slight dark marks on it; traces of a minutely dentate dark subterminal line; cilia blackish at base, rufous at tips. Hind wing ochreous yellow with a diffused dark

streak below extremity of vein 2; cilia white at tips except at apex; the underside with the apex tinged with rufous.

♀. Head, thorax, and fore wing rufous.

Ab. 1. ♀. Fore wing with white spots defined by black on ante- and postmedial lines in submedian interspaces.

Ab. 2. ♀. Fore wing with the medial area suffused with purplish fuscous.

Ab. 3. ♀. Fore wing with the basal and terminal areas olive-green, the medial area suffused with purplish fuscous.

Hab. Br. C. Africa, Chiromo (*de Jersey*), 1 ♀ type; N. Rhodesia, Loangwa Distr. (*Neave*), 1 ♂ type *esmeralda*; Lorenço Marques, Delagoa Bay (*Mrs. Monteiro*) in Coll. Druce. *Exp.* 20–22 millim.

6890. **Chlorozada verna.**

Erizada verna, Hmpsn. Ann. S. Afr. Mus. ii. p. 318 (1902).

♂. Head and thorax pale blue-green; palpi and frons dark brown mixed with red; antennæ brown ringed with white towards base; pectus and legs white, the tibiæ and tarsi irrorated with brown; abdomen white, dorsally tinged with fuscous, leaving pale segmental lines, the extremity tinged with rufous. Fore wing pale blue-green, the costal edge brown, the costal and terminal areas slightly irrorated with black; a subbasal black point on costa; antemedial line black defined on inner side by white, slightly

Fig. 197.—*Chlorozada verna*, ♂. ½.

curved and oblique; a black discoidal point; postmedial line black defined on outer side by white, sinuous, oblique to vein 6, then almost erect; a slightly waved blackish subterminal line, slightly angled outwards below vein 7 and inwards at discal fold, ending at tornus and with white points before and beyond it on costa; cilia red mixed with purplish fuscous. Hind wing pale ochreous, the inner and terminal areas suffused with brown. Underside pale ochreous, the costal and terminal areas of fore wing and the terminal area of hind wing tinged with purplish brown.

Hab. Mashonaland, Salisbury (*Marshall*), 1 ♂ type. *Exp.* 20 millim.

6891. **Chlorozada endophæa**, n. sp. (Plate CXCI. fig. 27.)

♂. Head and thorax pale sap-green; abdomen brown; pectus legs, and ventral surface of abdomen whitish tinged with brown

Fore wing pale sap-green; antemedial line white defined on outer side by brown, slightly sinuous; the medial area with a brown patch on inner margin; a slight dark discoidal point; postmedial line white defined on inner side by brown, excurved below costa and at middle and slightly incurved at discal fold; a subterminal series of black-brown points; cilia dark brown at base, rufous at tips. Hind wing brown; cilia whitish at tips; the underside whitish tinged with brown.

Hab. Gold Coast, Bibianaha (*Spurrell*), 1 ♂ type. *Exp.* 22 millim.

Genus **PARACRAMA**.

Type.

Paracrama, Moore, Lep. Ceyl. iii. p. 54 (1884) ..... *dulcissima*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd very long; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed with scales and hair mixed and without crests; tibiæ moderately fringed with hair; abdomen with dorsal crest at base only. Fore wing with the apex rectangular, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

6892. **Paracrama dulcissima.**

Nolasena dulcissima, Wlk. Journ. Linn. Soc., Zool. vii. p. 76 (1864); Moore, Lep. Ceyl. iii. p. 55, pl. 150. f. 11; Hmpsn. Moths Ind. ii. p. 134; Swinh. Cat. Het. Mus. Oxon. ii. p. 589; Kirby, Cat. Lep. Het. p. 281.
Paracrama rectomarginata, Hmpsn. Ill. Het. B.M. viii. p. 46, pl. 139. f. 7 (1891); Kirby, Cat. Lep. Het. p. 281.

Head and thorax bright yellow-green; palpi and frons chocolate-brown mixed with purplish and white; antennæ brown; pectus and legs white, the fore femora dark brown above, the fore and mid tibiæ brown and white mixed, the tarsi ringed with cupreous

Fig. 198.—*Paracrama dulcissima*, ♂. ½.

red; abdomen white dorsally suffused with purplish pink. Fore wing bright yellow-green; the costal edge purple-brown; some purplish red at base of inner margin; antemedial line fine, white, oblique to median nervure; postmedial line fine, white, oblique from costa to vein 7, then erect, some short white streaks beyond it on costa; a terminal purple-brown band with some whitish on it towards apex, very narrow except towards apex and below vein 2

where it expands. Hind wing white tinged with yellow, the terminal area suffused with pink; cilia pink at base, white at tips. Underside of fore wing white with the costal half and terminal area suffused with pink; hind wing white faintly tinged with pink.

Ab. 1. *rectomarginata*. Fore wing with the terminal band expanding into a small quadrate patch at apex, then very narrow with its inner edge minutely waved.

Ab. 2. Fore wing tinged with golden yellow, the lines yellow except at costa, the terminal band broader.—Queensland.

Ab. 3. Hind wing of male wholly fiery red on upper and undersides.—N. Guinea.

Hab. Punjab (*James*), 1 ♀; Assam, Nága Hills; Madras, Nilgiris (*Hampson*), 5 ♀ type *rectomarginata*; Ceylon, 2 ♂, 2 ♀; Andamans, 1 ♀; Borneo, Sarawak (*Wallace*), 2 ♂, 2 ♀; Dutch N. Guinea, Fak-fak (*Pratt*), 1 ♂; Br. N. Guinea, Ekeikei (*Pratt*), 1 ♂, 2 ♀, Mt. Kebea (*Pratt*), 1 ♀; Queensland, Townsville (*Dodd*), 1 ♂. *Exp.* 26–30 millim.

Genus **LOPHOCRAMA**, nov.

Type, *L. auritincta*.

Proboscis fully developed; palpi upturned, the 1st joint long, the 2nd reaching to above vertex of head, the 3rd long, the 2nd and 3rd joints tufted with long hair behind; frons smooth, with pointed tuft of hair; eyes large, round; antennæ of male ciliated; thorax clothed with hair and hair-like scales and without crests; tibiæ smoothly scaled; abdomen with dorsal crest at base only. Fore wing with the apex somewhat produced and acute, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing green ..... *phœnicochlora*.
B. Fore wing rufous with a greenish golden gloss ..... *auritincta*.

6893. **Lophocrama phœnicochlora**, n. sp.
(Plate CLXXXVII. fig. 24.)

♂. Head and thorax bright yellow-green; palpi brown mixed with white; antennæ brown; pectus and legs white, the fore femora brown above, the tibiæ irrorated with brown and the tarsi banded with red; abdomen purple-red, the crest at base green, the ventral surface white. Fore wing bright yellow-green, the costal edge yellow; a subbasal black point on costa; antemedial line with black point at costa, then indistinct, green, sinuous; postmedial line just beyond the cell, indistinct, green, sinuous, oblique to vein 4, then incurved, some white points beyond it on costa towards apex placed on a small red patch; subterminal line represented by a faint dark shade on its inner side; cilia brownish at tips. Hind wing purple-red. Underside of fore wing purple-red, the base and

inner area whitish; hind wing flesh-colour, the terminal area purple-red.

♀. Hind wing with the basal half white.

Ab. 1. ♂. Hind wing white, the termen and the inner area slightly suffused with purple-red; underside of fore wing white with red suffusion below costa and on apical half of terminal area.

Ab. 2. ♂. Fore wing with the medial area purplish grey suffused and irrorated with purplish fuscous.

Ab. 3. ♀. Fore wing with the medial area whiter with less purplish fuscous suffusion.

Hab. Gambia (*Moloney*) in Coll. Druce; Gold Coast, N. Ashanti (*Dudgeon*), 1 ♀; S. Nigeria, Lagos (*Boag*), 1 ♂, Olokemeji (*Dudgeon*), 1 ♂ type; Natal, Durban (*Quekett*), 1 ♀. *Exp.* 30–32 millim.

6894. **Lophocrama auritincta.**

Carea auritincta, Hmpsn. A. M. N. H. (7) xvi. p. 597 (1905).

♂. Head and thorax rufous with a silky gloss; palpi in front, pectus and legs white; fore and hind tibiæ partly rufous, the tarsi rufous ringed with white; abdomen pale rufous, the ventral surface white. Fore wing rufous with a greenish golden gloss especially

Fig. 199.—*Lophocrama auritincta*, ♂. ½.

towards costa; the costa with antemedial and medial black and white points, towards apex with dark brown streaks interrupted by three white points. Hind wing fiery orange-red; cilia white at tips. Underside of fore wing orange-red, the inner area and costal area to beyond middle suffused with white; hind wing white tinged with red.

Hab. Nigeria, Old Calabar (*Crompton*), 1 ♂ type. *Exp.* 26 millim.

Genus **PSEUDELYDNA.**

Type.

Pseudelydna, Hmpsn. Moths Ind. ii. p. 420 (1894) ..... *rufoflava.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to middle of frons and moderately scaled, the 3rd short; frons smooth; eyes large, round; antennæ of male with fasciculate cilia; thorax clothed with hair and hair-like scales, the prothorax without crest, the metathorax with slight crest; fore and mid tibiæ moderately fringed with hair; abdomen with dorsal crests on basal segments and clothed with rough hair, in male very long. Fore wing long and narrow, the apex rounded, the termen typically evenly curved and slightly crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell.

Hind wing with veins 3, 4 from angle of cell or stalked; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Hind tibiæ of male very short, the medial spurs absent, the 1st joint of tarsus very long and dilated, fringed with long hair on outer side; fore wing with the termen excised below apex.

6895. Pseudelydna xanthia.

Carea xanthia, Hmpsn. J. Bomb. Soc. Nat. Hist. xiv. p. 213 (1902).

Head and thorax orange-yellow; palpi white in front, red at sides; antennæ brown; metathoracic crest crimson; pectus and legs white, the fore and mid tibiæ and tarsi red; abdomen orange, the crests brown, the ventral surface white at base. Fore wing orange-yellow, irrorated with a few black scales; a black point in base of cell and slight brown marks in middle of cell and on discocellulars; a black streak on inner margin before middle; traces of a punctiform postmedial line, excurved below costa and at

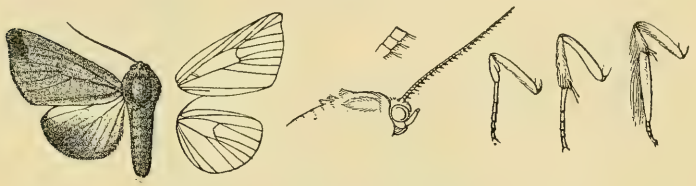


Fig. 200.—*Pseudelydna xanthia*, ♂. ½.

middle and incurved at discal and submedian folds; an oblique white mark from apex defined by blackish and more or less irrorated with blackish and an oblique blackish striga at tornus; cilia rufous, blackish at tips. Hind wing orange-yellow, the terminal area tinged with rufous and the cilia rufous from apex to vein 2; the underside with the costal half irrorated with black, a deep rufous triangular patch on terminal area from apex to vein 2.

Ab. 1. Head, thorax, and basal half of fore wing suffused with rufous.

Hab. Sikhim, 1800′ (*Dudgeon*), 1 ♂, 1 ♀ type; Singapore (*Ridley*), 1 ♂, 1 ♀. *Exp.* 38–40 millim.

Sect. II. Hind tibiæ of male of normal length, the femora of male with tufts of black hair, the tibiæ and tarsal joints fringed with long hair in both sexes.

6896. Pseudelydna rufoflava.

Xanthia rufoflava, Wlk. x. 467 (1856); Hmpsn. Moths Ind. ii. p. 420.
Elydna diurna, Swinh. P. Z. S. 1889, p. 412, pl. 43. f. 10.

Head and thorax bright yellow, the dorsum of thorax tinged with rufous; palpi and a bar across frons rufous; pectus white, the

tibiæ and tarsi rufous; abdomen rufous with the ventral surface white. Fore wing bright yellow, the terminal area rufous, the costal edge tinged with rufous; antemedial line pale greenish, oblique, slightly sinuous; an elliptical discoidal spot with flesh-coloured centre and rufous annulus; postmedial line pale greenish, excurved below costa, then rather oblique; the rufous terminal area defined on inner side by the dark somewhat punctiform subterminal line, angled outwards below vein 7 and inwards at discal

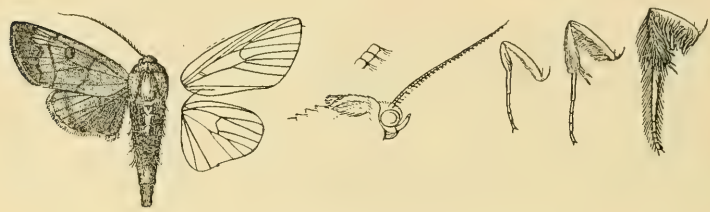


Fig. 201.—*Pseudelydna rufoflava*, ♂. ½.

and submedian folds, bent outwards to tornus; the veins of terminal area with slight dark streaks; a fine dark terminal line; cilia with some dark scales at tips. Hind wing fiery red, the interspaces somewhat semihyaline to beyond middle; cilia whitish at tips.

Ab. 1. Head, thorax, and fore wing apple-green.

Ab. 2. *diurna*. Head, thorax, and fore wing rufous.

Hab. Punjab, Almorah (*Boys*), 1 ♂, 1 ♀ type; Bombay, Kanara (*Wise*), 1 ♀ type *diurna*; Madras, Belgaum (*T. R. Bell*), 2 ♂, 2 ♀. *Exp.* 38–40 millim.

Genus **SPHINGIFORMA**.

Type.

Sphingiforma, Beth.-Baker, Nov. Zool. xiii. p. 241 (1906) ..... *pratti*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to just above vertex of head, the 3rd long and somewhat dilated at extremity; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed with hair and hair-like scales and with slight ridge-like crest; fore and mid tibiæ slightly fringed with hair, the hind tibiæ, spurs and first two joints of tarsus fringed with very long hair on both sides; abdomen very long, clothed with rough hair and without crests, with lateral fringes of hair curved over on ventral surface, the claspers very long and tufted with hair. Fore wing very long and narrow; the costa arched near base, the apex rounded, the termen very obliquely curved and not crenulate, the inner margin lobed at middle; veins 3 and 5 from near angle of cell; 6 from the areole which is formed by 9 from 10 anastomosing with 8; 11 from cell. Hind wing with the termen excised before tornus which is lobed; the discocellulars strongly incurved and the angles of cell very much produced; veins 3, 4, 5 from lower angle and 6, 7 from upper angle; 8 anastomosing with the cell near base only.

*6897. Sphingiforma pratti.

Sphingiforma pratti, Beth.-Baker, Nov. Zool. xiii. p. 241 (1906).

♂. Head and thorax black-brown with a greyish tinge; pectus whitish tinged with brown; legs brown mixed with white, the fore tibiæ and tarsi striped with white in front, the hind tibiæ streaked with white above at base, the hair on hind legs white tinged with brown; abdomen black-brown with a greyish tinge, the extremity and lateral fringes of hair white, the anal tuft rufous, the ventral surface white tinged with ochreous. Fore wing grey-white, the basal half suffused with fuscous brown, the apical half irrorated with brown, the costal edge white; antemedial line very indistinct, double, very oblique from costa to submedian

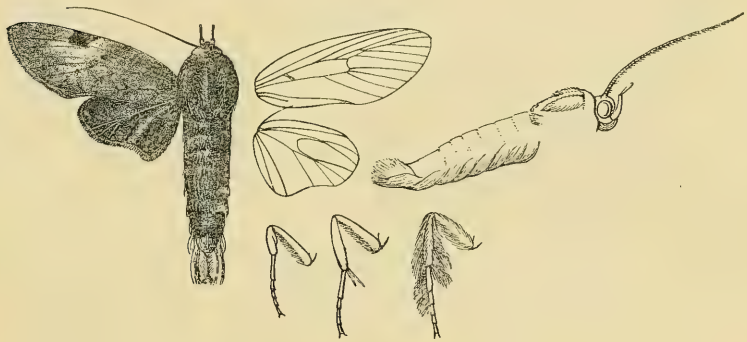


Fig. 202.—*Sphingiforma pratti*, ♂. ½.

fold, then erect and slightly angled inwards on vein 1; a black discoidal point; a very indistinct, rather diffused dark medial line, very oblique from costa to vein 1 and bent inwards to inner margin; an oblique quadrate fuscous patch on costa beyond middle with the very faint minutely waved postmedial erect line rising from it; a very indistinct subterminal line with black points on the veins, angled outwards at vein 6 and ending at tornus; cilia whitish at base with dark line at middle, and red tips whitish towards apex. Hind wing fuscous black, the cilia whitish at tips. Underside of fore wing fuscous brown with the apical area greyish.

Hab. Br. N. Guinea, Dinawa (*Pratt*), type† ♂ in Coll. Bethune-Baker, Ekeikei. *Exp.* 58 millim.

Genus **AITETA**.

	Type.
Aiteta, Wlk. ix. 131 (1856)	*musculina.*
Capotena, Wlk. xi. 714 (1857)	*apriformis.*
Brada, Wlk. xv. 1665 (1858)	*truncata.*
Chaladra, Wlk. xxxii. 639 (1865)	*musculina.*
Phanaca, Wlk. xxxiii. 856 (1865)	*damnipennis,*
Thyrsoscelis, Meyr. Trans. Ent. Soc. 1889, p. 473	*iridias.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and smoothly scaled, the 3rd short, porrect; frons smooth; eyes large, round; antennæ of male with fasciculate cilia; thorax clothed with hair and hair-like scales and without crests; mid and hind tibiæ of male fringed with long hair, also the 1st joint of hind tarsus and the inner spurs; abdomen with dorsal crests on basal segments, in male very long with lateral fringes of downturned hair. Fore wing long and narrow, the apex rounded, the termen obliquely curved and not crenulate; veins 3 and 5 from near angle of cell; 9 from 10 anastomosing with 8 to form a long areole; 6 from the areole; 11 from cell. Hind wing with veins 3, 4 stalked; 5 fully developed from angle of cell or in male sometimes shortly stalked, with 3, 4; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Hind wing with more or less orange-red.
  a. Fore wing black-brown beyond an oblique line from middle of costa to inner margin before middle ..... *gamma.*
  b. Fore wing with the apical area black-brown from middle of costa to termen above tornus ..... *veluta.*
  c. Fore wing with triangular black-brown postmedial patch on costa ..... *escalerai.*
  d. Fore wing without black-brown.
    a^1. Hind wing wholly orange-red.
      a^2. Fore wing with the postmedial line oblique from costa beyond middle to termen at vein 2 ..... *paralella.*
      b^2. Fore wing with the postmedial line incurved below vein 4 to inner margin before tornus ..... *meterythra.*
    b^1. Hind wing yellowish white, the terminal area tinged with red ..... *thermistis.*
B. Hind wing uniform orange-yellow ..... *costiplaga.*
C. Hind wing without red or yellow.
  a. Fore wing with oblique dark brown conical patch from middle of costa to submedian fold defined by whitish lines.
    a^1. Fore wing with the dark patch rounded below, its outer edge indented ..... *hampsoni.*
    b^1. Fore wing with the dark patch pointed below, its outer edge excurved ..... *trigoniphora.*
  b. Fore wing without dark conical patch.
    a^1. Fore wing with the ante- and postmedial lines and a streak in submedian fold pure white ..... *scripta.*
    b^1. Fore wing without white lines and streak.
      a^2. Fore wing with the lines defined by whitish suffusion; underside of both wings with the costal areas fulvous yellow ..... *subflava.*
      b^2. Fore wing with the lines not defined by whitish suffusion; underside of both wings with the costal areas not yellow.
        a^3. Fore wing with the postmedial line oblique and straight from costa to vein 3 towards termen.
          a^4. Fore wing with the costal edge white.
            a^5. Fore wing purplish grey-brown ..... *albicosta.*
            b^5. Fore wing rufous suffused with purplish ... *iridias.*
          b^4. Fore wing with the costal edge not white ... *elaina.*

b^3. Fore wing with the postmedial line obliquely excurved from costa to vein 3	*musculina.*
c^3. Fore wing with the postmedial line excurved from costa to vein 4, then slightly incurved	*apriformis.*
d^3. Fore wing with the postmedial line excurved below costa and incurved at discal fold and below vein 4	*damnipennis.*
e^3. Fore wing with the postmedial line excurved below costa, then straight and erect	*truncata.*

6898. **Aiteta gamma.** (Plate CLXXXVII. fig. 25.)

Carea gamma, Hmpsn. A. M. N. H. (7) xvi. p. 598 (1905).

♂. Head, tegulæ, and patagia greyish brown, the tegulæ with deep chocolate medial patch; thorax leaden grey; pectus pale; coxæ fiery red, the tufts of hair on hind tibiæ fuscous; abdomen greyish on dorsum, reddish at sides and below, the crests at base black, the extremity blackish. Fore wing greyish brown to an oblique line from middle of costa to inner margin before middle, the basal costal area suffused with reddish brown; the terminal half black-brown; a black point defined by a slight pale annulus in end of cell; a slight silvery gamma-shaped mark on discocellulars with black point between its arms, its tail extending obliquely beyond lower angle of cell; an indistinct black postmedial line oblique from costa to vein 4, then bent inwards to vein 2 and outwards towards tornus, a diffused blackish fascia from it to termen above vein 5. Hind wing yellow suffused with fiery red especially towards apex. Underside of fore wing fiery red.

Hab. S. Nigeria, Sapele (*Sampson*), 1 ♂ type *Exp.* 32 millim.

6899. **Aiteta veluta**, n. sp. (Plate CLXXXVII. fig. 26.)

♀. Head and thorax red-brown mixed with violaceous grey; pectus and legs red-brown; abdomen orange-red dorsally tinged with brown, ventrally red-brown. Fore wing violaceous grey tinged with brown and with slight blackish irroration, the basal costal area darker; an oblique blackish antemedial line; a velvety black-brown area, its inner edge obliquely curved from middle of costa to termen above tornus, leaving the apical area of the ground-colour, a blue-grey patch on it above end of cell connected with a discoidal striga; a maculate black-brown subterminal line, oblique from costa to vein 6, then slightly incurved and ending on termen at vein 3; the termen black-brown at apex; cilia dark brown at apex and beyond the dark area. Hind wing orange-red. Underside of fore wing crimson-red; hind wing orange-red with the apical area crimson-red.

Hab. S. Nigeria, Lagos, Ebute Meta (*Boag*), 1 ♀ type. *Exp.* 28 millim.

6900. **Aiteta escalerai.** (Plate CLXXXVII. fig. 27.)

Aiteta escalerai, Kheil, Mem. Soc. Espan. i. p. 494 (1909).

♀. Head violaceous grey-brown, the antennæ with the outer side of basal joint white; thorax deep sap-green; pectus and legs violaceous brown, the fore coxæ fiery red; abdomen violaceous grey with whitish segmental lines, dorsally with some fulvous red hair and the basal crest grey, ventrally red. Fore wing violaceous grey suffused with chocolate-brown especially between lower angle of cell and tornus; the basal inner area deep sap-green; an indistinct curved minutely waved dark antemedial line; a black-brown patch on costa beyond middle with an indistinct oblique line from it to inner margin; a slight punctiform dark subterminal line, oblique to vein 6, then incurved and ending on termen at vein 3; the apical part of termen and cilia black-brown. Hind wing yellow tinged with red. Underside of fore wing pale red; hind wing yellow, the apical area tinged with red.

Hab. S. Nigeria, Lagos, Ebute Meta (*Boag*), 1 ♀; Spanish Guinea, Biafra, Cabo de San Juan. *Exp.* 28 millim.

6901. **Aiteta paralella**, n. sp. (Plate CLXXXVII. fig. 28.)

♀. Head and thorax chocolate-red; pectus and legs with some whitish; abdomen pinkish red. Fore wing pinkish grey irrorated with dark brown, the apical area ochreous tinged with reddish brown, broad at costa and narrowing to a point at vein 3; an oblique pale antemedial line with some chocolate-brown suffusion beyond it; an oblique pale line from costa beyond middle to termen at vein 2, some chocolate-brown suffusion before it, widening at middle and some beyond it wider at costa and with rather dentate outer edge; an indistinct maculate brown subterminal line, incurved below costa and at vein 5 and ending on termen at vein 3; a terminal series of brown striæ. Hind wing orange-red. Underside orange-red, the apical area of fore wing paler.

Hab. Gold Coast, Kumasi (*Whiteside*), 1 ♀ type. *Exp.* 30 millim.

6902. **Aiteta meterythra.** (Plate CLXXXVII. fig. 29.)

Aiteta meterythra, Hmpsn. A. M. N. H. (7) xvi. p. 593 (1905).

♂. Head and thorax deep rufous; fore tibiæ and tarsi and mid and hind tibiæ streaked with rufous, the fringe of very long hair on hind tibiæ tinged with fuscous; abdomen orange-red, the base and extremity of dorsum tinged with brown. Fore wing deep rufous slightly suffused with grey except on medial area and with slight dark irroration; antemedial line defined by grey on inner side, outwardly oblique, almost straight; a slight blackish point in cell towards extremily and blackish discoidal bar; postmedial line defined by greyish on outer side with some deeper rufous suffusion

on each side of it, slightly oblique from costa to vein 6 and incurved below vein 4; subterminal line fine, blackish, slightly waved, angled outwards at vein 7, excurved at middle and ending on termen above tornus. Hind wing and underside of both wings fiery red.

♀. Thorax and abdomen sometimes dorsally tinged with grey; fore wing with the ground-colour deep rufous or more or less entirely suffused with grey.

Hab. S. Nigeria, Old Calabar (*Crompton*), 3 ♀, Sapele (*Sampson*), 1 ♂, 2 ♀ type, Baro (*Simpson*), 1 ♀. *Exp.* ♂ 30, ♀ 26–28 millim.

6903. Aiteta thermistis.

Carea thermistis, Hmpsn. P. Z. S. 1910, p. 416, pl. xxxvi. f. 17.

♂. Head, thorax, and abdomen rufous mixed with some fuscous. Fore wing pale rufous suffused with some brown on basal costal area, beyond the antemedial line on inner area, and between the postmedial and subterminal lines; antemedial line indistinct, brownish, minutely waved, bent outwards below the cell; a black point in end of cell and whitish discoidal lunule defined on inner side by black; postmedial line rather diffused, brown, oblique from costa to vein 4, angled inwards just above submedian fold and bent outwards to inner margin, a rather oblique diffused dark streak from it to termen below apex; a rather indistinct brown subterminal line, excurved at vein 7 and middle and ending on termen above tornus; a brown apical patch; cilia with some brownish spots. Hind wing yellowish white tinged with rufous, the termen fiery red; cilia whitish at tips; the underside whitish, the marginal areas suffused with fiery red.

Hab. N.E. Rhodesia, Luangwa R. (*Neave*), 1 ♂ type. *Exp.* 32 millim.

6904. Aiteta costiplaga. (Plate CLXXXVII. fig. 30.)

Aiteta costiplaga, Hmpsn. A. M. N. H. (7) xvi. p. 593 (1905).

♀. Head and thorax rufous; palpi with the extremity of 2nd and 3rd joints white; frons with white patch below; vertex of head and thorax with whitish patches; abdomen pale rufous. Fore wing pale brownish rufous slightly tinged with grey; antemedial line indistinct, outwardly oblique, arising from a slight olive triangular patch on costa; postmedial line indistinct, inwardly oblique, arising from apex of a triangular olive patch on costa; traces of a sinuous punctiform subterminal line; cilia grey at base, with brown line through them and whitish tips. Hind wing and underside of both wings orange-yellow.

Hab. S. Nigeria, Onitsha, 1 ♀ type. *Exp.* 30 millim.

6905. Aiteta hampsoni. (Plate CLXXXVII. fig. 31.)

Capotena hampsoni, Beth.-Baker, Nov. Zool. xv. p. 199 (1908).

Head and thorax fuscous brown; pectus whitish tinged with rufous, the legs suffused with brown, the tarsi brown ringed with white; abdomen fuscous brown, the anal tuft and ventral surface rufous. Fore wing grey suffused with dark brown, the costal half whitish tinged with ochreous brown on basal area and before the subterminal line; a large dark olive-brown conical patch edged by white lines from middle of costa to submedian fold, its inner edge oblique, its outer excised between veins 7 and 4, a small dark discoidal spot on it; subterminal line brown, somewhat diffused, oblique to vein 6, and incurved at discal fold. Hind wing fuscous brown, the cilia whitish at tips. Underside of both wings dark brown with the costal area rufous.

Hab. Dutch N. Guinea, Fak-fak (*Pratt*), 1 ♀; Br. N. Guinea, Ekeikei (*Pratt*), 2 ♂. *Exp.* 40 millim.

6906. Aiteta trigoniphora. (Plate CLXXXVII. fig. 32.)

Capotena trigoniphora, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 455 (1897).
Capotena spatulata, Schultze, Phil. Journ. Gen. Sci. ii. p. 365, pl. 1. f. 5 (1907).

♂. Head and thorax dark chocolate-brown; pectus and legs whitish tinged with brown, the tarsi brown ringed with white; abdomen fuscous, the extremity and ventral surface whitish tinged with rufous. Fore wing grey suffused with brown; a large triangular deep olive-brown patch edged by white lines from middle of costa to submedian fold, its inner edge oblique, its outer excurved below costa and slightly incurved below vein 5; an indistinct brown subterminal line, oblique to vein 6 and incurved at discal fold; a fine brown terminal line and whitish line at base of cilia. Hind wing fuscous brown, the cilia with a whitish line at base; the underside with the costal area grey-brown.

Hab. Assam, Khásis, 1 ♂ type; Philippines, Manilla. *Exp.* 38 millim.

6907. Aiteta scripta.

Arbasera scripta, Wlk. xxxii. 639 (1865); Swinh. Cat. Het. Mus. Oxon. ii. p. 99, pl. iii. f. 11.
Capotena albotessellata, Beth.-Baker, Nov. Zool. xiii. p. 241 (1906).

Head and tegulæ dark chocolate-brown; palpi white in front at base; antennæ with the basal joint white in front; tegulæ with a slight dorsal white mark at tips; thorax red-brown with white band behind; pectus and legs white, the latter striped with rufous; abdomen greyish brown, the ventral surface white tinged with rufous except at base. Fore wing red-brown with very faint ochreous irroration, the inner area darker; the costal edge white;

an oblique white streak from base of costa in submedian fold to beyond antemedial line, which is white and very oblique; a small dark discoidal spot; postmedial line white and very oblique from costa to vein 3 towards termen, then curved inwards to a white patch at tornus; traces of a minutely waved dark subterminal line, slightly excurved below vein 7 and at middle; cilia white towards apex, then brown with a white line at base. Hind wing dark greyish brown, the cilia white at tips. Underside of fore wing rufous with the disk brown; hind wing brown with the costal area rufous.

Hab. Aru Is. (*Wallace*), type † in Mus. Oxon.; Dutch N. Guinea, Arfak Mts., Ninay Valley (*Pratt*), 1 ♂, 1 ♀; Br. N. Guinea, Dinawa (*Pratt*), type † ♀ *albotessellata* in Coll. Bethune-Baker, Babooni. *Exp.* 44 millim.

6908. **Aiteta subflava.** (Plate CLXXXVIII. fig. 1.)

Capotena subflava, Beth.-Baker, Nov. Zool. xiii. p. 240 (1906).

Head and thorax black-brown, the outer half of patagia grey, the prothorax with slight tuft of ochreous white hair, the metathorax edged with white; pectus white; legs white mixed with brown, the tarsi ringed with white; abdomen black-brown with slight grey segmental lines, the anal tuft and ventral surface white. Fore wing violaceous grey suffused with brown, the terminal half with slight brown striæ; the basal area with some diffused white along median nervure; an oblique diffused dark brown line from costa before middle to middle of inner margin, defined on outer side by diffused white except on inner area; a similar brown shade from middle of costa to vein 2, a similar shade from costa to below vein 4, then bent downwards to inner margin as a slight subterminal line, and a similar shade from costa towards apex to vein 6, the last not defined on outer side by white suffusion. Hind wing fuscous black with some whitish just beyond the cell and beyond lower angle; the costal area white to end of cell, then reddish brown; cilia white. Underside of fore wing fuscous black, the costal area fulvous yellow, the terminal area pale reddish brown; hind wing with the costal area fulvous yellow and with more white beyond and below the cell.

Hab. Dutch N. Guinea, Arfak Mts., Ninay Valley (*Pratt*), 1 ♀; Br. N. Guinea, Dinawa (*Pratt*), 1 ♂, Mt. Kebea (*Pratt*), 1 ♀. *Exp.* 52 millim. Type † in Coll. Bethune-Baker.

6909. **Aiteta albicosta.** (Plate CLXXXVIII. fig. 2.)

Capotena albicosta, Beth.-Baker, Nov. Zool. xiii. p. 240 (1906).

Head and thorax dark violaceous brown; antennæ with the basal joint white on outer side; pectus white; legs white irrorated with brown; abdomen greyish fuscous, the anal tuft and ventral surface white tinged with pinkish. Fore wing violaceous brown with slight dark irroration, the costal edge white; an oblique dark line

slightly defined on inner side by whitish from costa before middle to middle of inner margin; a slight dark discoidal striga; a dark line defined on outer side by white, oblique from costa to vein 3, then curved round to inner margin before tornus; a curved series of small dark subapical spots from costa to below vein 7 and subterminal spots below veins 5 and 4, cilia whitish towards apex. Hind wing whitish suffused with brown, the submedian interspace whiter except towards termen; cilia white at tips. Underside of fore wing with the costal area pale rufous.

Hab. Br. N. Guinea, Mt. Kebea (*Pratt*), 1 ♂, Ekeikei (*Pratt*), 2 ♀. *Exp.* 42–44 millim. Type † in Coll. Bethune-Baker.

6910. Aiteta iridias. (Plate CLXXXVIII. fig. 3.)

Thyrsoscelis iridias, Meyr. Trans. Ent. Soc. 1889, p. 473.

♀. Head and thorax chocolate red-brown with a purplish tinge; antennæ with the outer side of basal joint white; some white scales below tegulæ; pectus and legs white, the latter irrorated with red-brown, the tarsi red-brown ringed with white; abdomen greyish fuscous, the anal tuft and ventral surface white. Fore wing rufous tinged with purplish especially on inner and terminal areas; the costal edge whitish; antemedial line chocolate-brown defined on inner side by whitish, oblique from costa to middle of inner margin; a slight dark discoidal bar; postmedial line chocolate-brown defined on outer side by whitish and with some purplish suffusion beyond it, oblique from costa to vein 3 near termen, then subterminal; a curved maculate subapical dark line from costa to below vein 7 and a small subterminal spot below vein 5. Hind wing grey suffused with fuscous brown; cilia pale brown at base, white at tips. Underside of fore wing fuscous with the costal and terminal areas bright rufous; hind wing white, the costal area bright rufous, the terminal area suffused with brown.

Hab. Dutch N. Guinea, Arfak Mts., Ninay Valley (*Pratt*), 1 ♀; Br. N. Guinea, Mt. Obru. *Exp.* 40 millim.

6911. Aiteta elaina. (Plate CLXXXVIII. fig. 4.)

Capotena elaina, Swinh. A. M. N. H. (7) vii. p. 492 (1901).

♂. Head and thorax bright rufous; antennæ with the basal joint white at sides; pectus white; hind femora and tibiæ white; abdomen fuscous black, the anal tuft pinkish rufous, the ventral surface white tinged with pinkish. Fore wing bright rufous irrorated with fuscous, the inner area slightly tinged with fuscous except towards base; an oblique dark brown line from costa before middle to middle of inner margin; a slight dark discoidal striga and shade beyond lower angle of cell; an oblique line from costa beyond middle to below vein 3, then bent inwards to inner margin as a subterminal line; a curved dark shade from costa towards apex to vein 7 and slight subterminal spots below veins 7

and 5. Hind wing whitish suffused with brown; cilia white at tips. Underside with the costal and terminal areas of fore wing and the costal area of hind wing pinkish rufous.

♀. Abdomen with the anal tuft and ventral surface white; hind wing white, the veins brown, the terminal area tinged with brown from apex to vein 2.

Hab. Br. N. Guinea, Albert Edward Range (*Rohn*), 1 ♂, Sogeri, 1 ♂; Queensland, 1 ♂, 2 ♀ type. *Exp.* ♂ 48, ♀ 46 millim.

6912. Aiteta musculina.

Aiteta musculina, Wlk. ix. 131 (1856).
Chaladra cucullioides, Wlk. xxxii. 640 (1865); Swinh. Cat. Het. Mus. Oxon. ii. p. 98, pl. iii. f. 2.

Head and tegulæ olive-fuscous; thorax violaceous brown mixed with grey; palpi at base and pectus white; legs white irrorated with brown; abdomen fuscous, the crests and extremity violaceous brown, the ventral surface white tinged with purplish. Fore wing violaceous grey suffused with brown and irrorated with dark brown; a slight oblique dark line from costa before middle to middle of inner margin; a black discoidal point; postmedial line with

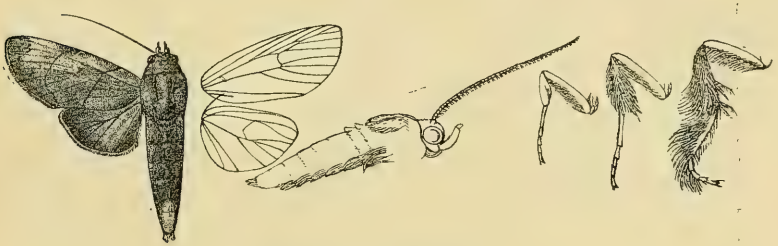


Fig. 203.—*Aiteta musculina*, ♂. ½.

slight dark shade at costa, obliquely curved to vein 3, then inwardly oblique to inner margin near tornus; slight obliquely placed subapical dark spots below veins 9, 8, 7 and a subterminal spot below vein 5. Hind wing whitish suffused with dark brown; cilia white at tips. Underside of fore wing fuscous with the costal and apical areas violaceous grey; hind wing white with fuscous suffusion beyond the cell and on termen towards tornus.

Hab. Burma, Rangoon (*Watson*), 1 ♂; Singapore (*Ridley*), 2 ♂; Philippines (*Cuming*), 1 ♀ type; Ceram, type † *cucullioides* in Mus. Oxon. *Exp.* 40–46 millim.

6913. Aiteta apriformis. (Plate CLXXXVIII. fig. 5.)

Capotena apriformis, Wlk. xi. 715 (1857); Hmpsn. Moths Ind. ii. p. 419.

Head and thorax red-brown irrorated with fuscous; antennæ

with the basal joint white on outer side; pectus white; legs white suffused with red-brown; abdomen grey-brown, the ventral surface white, tinged with pinkish towards extremity. Fore wing red-brown irrorated with black; an oblique blackish line from costa before middle to middle of inner margin; a blackish discoidal point; postmedial line blackish, obliquely excurved from costa to vein 4, then slightly incurved; subterminal line blackish, punctiform, oblique from below costa to below vein 7 and angled inwards at discal fold; cilia grey-brown at base, ochreous at tips. Hind wing white tinged with brown, the veins brown; cilia white; the underside creamy white, the costal area slightly irrorated with rufous.

Hab. Bombay, Mhow (*Forsayeth*), 1 ♂, Kanara (*Ward*), 1 ♀ type; Ceylon, 2 ♂. *Exp.* 40 millim.

Cocoon. Yellowish with thorn-like knobs and a long oblique tuft of dark hair anteriorly on dorsum.

6914. Aiteta damnipennis.

Phanaca damnipennis, Wlk. xxxiii. 857 (1865); Hmpsn. Ill. Het. B. M. ix. p. 101, pl. 159. f. 7; id. Moths Ind. ii. p. 419.

Head and thorax dark fuscous brown, the metathorax with redder patch; pectus and legs white, the tibiæ irrorated with red-brown, the tarsi red-brown ringed with white; abdomen fuscous brown with a greyish tinge, the crests tipped with grey, the ventral surface white tinged with pinkish. Fore wing chocolate-brown suffused with purplish grey and with slight dark irroration; the costal edge whitish; antemedial line dark, oblique, sinuous; a blackish discoidal point; postmedial line dark, oblique from below costa to vein 6, incurved at discal fold and below vein 4, excurved above inner margin; an oblique subapical series of three slight dark spots from below costa to below vein 7 and a subterminal spot below vein 5. Hind wing fuscous brown, the costal area grey to end of cell; cilia whitish at tips; the underside uniform dark brown.

Hab. Travancore, Pirmád (*Imray*), 1 ♂, 2 ♀; Ceylon (*Templeton*), 1 ♀ type, Nawalapittia (*Green*), 1 ♀. *Exp.* 30–32 millim.

6915. Aiteta truncata.

Brada truncata, Wlk. xv. 1666 (1858); Moore. Lep. Ceyl. ii. p. 118, pl. 122. f. 2, *a*, *b*; Hmpsn. Moths Ind. ii. p. 419.

Head and thorax chocolate red-brown; antennæ with the basal joint white at sides; pectus white; legs red-brown; abdomen fuscous brown, the crests and anal tuft rufous, the ventral surface white tinged with rufous. Fore wing chocolate red-brown with dark irroration, the costal edge pale; antemedial line whitish defined on outer side by dark brown, oblique, straight, from costa to middle of inner margin; a small blackish discoidal spot; post-

medial line whitish defined on inner side by dark brown, excurved below costa, then straight and erect; subterminal line dark and somewhat maculate, oblique to below vein 7, incurved at discal fold and excurved at middle; cilia chequered dark brown and rufous. Hind wing fuscous brown; cilia brown at base, whitish at tips; the underside whitish tinged with brown, the terminal area suffused with brown.

Hab. Sikhim (*Möller*), 3 ♂; Bombay (*Swinhoe*), 1 ♀; Madras, Nilgiris (*Hampson*), 1 ♂, 1 ♀; Travancore, Pirmád (*Mrs. Imray*), 1 ♀; Ceylon (*Templeton*), 2 ♂ type. *Exp.* 36–42 millim.

Larva. Head small; thoracic somites much swollen; anal somites with two small pointed dorsal tubercles; reddish brown, the thoracic somites more olive-brown; a pale dorsal line with lunulate black edges ending in a band on anal somite, the thoracic somites with dorsal black spots and streaks; a pale lateral line edged with blackish.

Cocoon. Pale reddish brown or yellowish, with some thorn-like knobs and an anterior dorsal hump.

Genus **CLETHROPHORA.**

Type.

Clethrophora, Hmpsn. Moths Ind. ii. p. 416 (1894) ..... *distincta.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and smoothly scaled, the 3rd long and oblique; frons smooth with pointed tuft of hair above; eyes large, round; antennæ of male minutely ciliated; thorax clothed with hair only and without crests; tibiæ slightly fringed with hair; abdomen with dorsal crest at base only. Fore wing with the apex produced and acute, the termen excised below apex, angled at vein 4, then oblique and slightly dentate at vein 2; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell or very shortly stalked; 5 fully developed from or from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

6916. **Clethrophora distincta.**

Gonitis distincta, Leech, P. Z. S. 1889, p. 506, pl. 52. f. 7; Hmpsn. Moths Ind. ii. p. 416.
Gonitis viridam, Heyl. C. R. Ent. Soc. Belg. 1890, p. xxx.

Head and thorax bright green; antennæ brown; palpi, pectus,

Fig. 204.—*Clethrophora distincta*, ♂. ½.

and legs pale reddish and grey; abdomen brown, ventrally pale

crimson. Fore wing bright green, the costal edge whitish; a black or reddish discoidal point; a slight obliquely curved whitish post-medial line from costa towards apex to inner margin, defined on outer side by a faint dark shade; traces of a dark subterminal line excurved at middle; cilia greyish brown. Hind wing fiery red, the cilia pale brown. Underside of both wings pale red, the apical area of fore wing suffused with black, of hind wing irrorated with black.

Hab. Japan, Yokohama (*Pryer*), 3 ♂, 3 ♀ type; Corea, Gensan (*Leech*), 1 ♂; Sikhim (*Möller*), 1 ♂; Assam, Khásis, 1 ♂; Straits Settlements, Perak, Larut Hills (*Flower*), 1 ♂; Java. *Exp.* 44–50 millim.

Genus CAREADES.

Type.

Careades, Beth.-Baker, Nov. Zool. xiii. p. 243 (1906)..... *sanguinea.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and moderately fringed with hair in front, the 3rd short; frons smooth; eyes large, rounded; antennæ of male minutely ciliated; thorax clothed with hair only and without crests; fore tibiæ typically moderately fringed with hair, the mid tibia of male and spurs fringed with very long hair on both sides, the 1st joint of tarsus fringed with long hair on outer side, the hind tibiæ very short and without spurs, the 1st joint of tarsus immensely long and fringed with long hair on both sides, the other joints very short; abdomen long, clothed with rough hair and with slight crests on basal segments. Fore wing with the costa arched near base and towards apex and excised at middle, the apex produced and acute, the termen typically slightly excised below apex and strongly excurved at middle, the inner margin lobed near base; veins 3 and 5 from near angle of cell; 6 from the areole which is long, formed by vein 9 from 10 anastomosing with 8; 11 from cell. Hind wing with the termen strongly excised below vein 2 and lobed at tornus, the inner area with tuft of long hair on underside; veins 3, 4 from angle of cell and approximated for some distance; 5 from just above angle; 6, 7 from upper angle and approximated for some distance; 8 anastomosing with the cell near base only.

Sect. I. Fore wing with the termen strongly excised below apex; fore tibiæ of male fringed with long hair.

*6917. Careades falcataria.

Careades falcataria, Beth.-Baker, Nov. Zool. xiii. p. 244 (1906).

♂. Head and thorax deep crimson-red mixed with black-brown; palpi crimson at sides, yellow in front; frons with lateral white lines; tegulæ with slight white line at base; pectus and legs orange suffused with crimson-red, the fore tibiæ blackish in front, the tarsi with brown mixed; abdomen brownish grey with some chocolate-red on penultimate segments and dorsal line of silvery scales on terminal segments, the ventral surface orange-red at base, dark grey at extremity with crimson lateral stripes, the anal tuft yellowish white at tip. Fore wing with the basal half very dark chocolate-brown with silvery suffusion on costal area, the costal edge red, the inner margin whitish at base then crimson-red. Ante-medial line indistinct, dark brown, curved and slightly waved; a double dark brown line filled in with silver from middle of costa to tornus, obliquely excurved below costa and towards tornus, closely

followed by a slight diffused dark obliquely incurved line; faint traces of a brownish subterminal line incurved below costa and excurved at middle; cilia dark chocolate-brown from apex to vein 4. Hind wing bright yellow suffused with fiery red on apical

Fig. 205.—*Careades falcataria*, ♂. ♀.

area, the inner area tinged with red and with some brownish hair in submedian fold. Underside of both wings yellow with the costal half suffused with fiery red.

Hab. Br. N. Guinea, Ekeikei (*Pratt*), type † ♂ in Coll. Bethune-Baker. *Exp.* 46 millim.

Sect. II. Fore wing with the termen slightly excised below apex; fore tibiæ of male moderately fringed with hair.

A. Fore wing with the apical half suffused with olive-green ... *eceicei.*
B. Fore wing with the basal half suffused with sap-green ..... *hemichlora.*
C. Fore wing without green suffusion.
a. Hind wing with the apical area chocolate-red to vein 2 ... *huntei.*
b. Hind wing uniform black-brown..... ..... *plagioscia.*

*6918. Careades eceicei. (Plate CLXXXVIII. fig. 24.)

Careades ekeikei, Beth.-Baker, Nov. Zool. xiii. p. 244 (1906).

♂. Head, tegulæ, and front of thorax black-brown, the rest of thorax pale grey; palpi white at base in front; pectus and legs white, the fore femora crimson-red on inner side, the tarsi suffused with crimson-red; abdomen grey with the lateral area olive-grey on basal half, the sides on terminal half and extremity blackish, the anal tuft red above ochreous below, the ventral surface blackish with some red at base. Fore wing pale grey, with slight dark irroration, the apical half tinged with olive-grey, the costal edge tinged with rufous; antemedial line slight, brown with darker striga from costa, then oblique, waved; a deep olive band defined on outer side by black and then by white from middle of costa to tornus; a diffused whitish subterminal band ending at tornus, the area beyond it rather darker olive-grey. Hind wing fuscous black

with a greyish tinge, the inner margin fringed with rufous hair at base, and white hair towards tornus. Underside of fore wing fuscous with the apical half of costa white; hind wing fuscous, the basal and inner areas suffused with crimson red, the apical area slightly irrorated with black.

♀. Fore wing with the band nearly erect with bronze-green suffusion beyond it.

Hab. Br. N. Guinea, Ekeikei (*Pratt*), type † ♂ in Coll. Bethune-Baker. *Exp.* 44 millim.

*6919. Careades hemichlora. (Plate CXCI. fig. 28.)

Careades hemichlora, de Joan. Bull. Soc. Ent. Fr. 1911, p. 309.

♂. Head and thorax chocolate-brown suffused with sap-green; pectus ochreous white; legs ochreous white suffused with rufous; abdomen fuscous tinged with grey, the ventral surface rufous. Fore wing with the basal half deep sap-green, the costal edge reddish with some purple-grey below it, the green area defined by an oblique purple-grey line from costa before middle to tornus; the rest of wing purple-grey with some rufous beyond the oblique line and some greenish on terminal area from below apex to below middle; slight fuscous postmedial spots below veins 8 and 6. Hind wing fuscous brown; the cilia whitish, tinged with rufous towards apex. Underside of fore wing fuscous brown, the costa red towards base, whitish towards apex, some red on terminal area below apex; hind wing red with the submedian interspace fuscous brown.

Hab. Buru, type † ♂ in Coll. de Joannis. *Exp.* 50 millim.

*6920. Careades huntei. (Plate CLXXXVIII. fig. 25.)

Thyrsosceles huntei, Warr. Nov. Zool. x. p. 123 (1903).
Careades sanguinea, Beth.-Baker, Nov. Zool. xiii. p. 243 (1906).

♂. Head and thorax deep chocolate-red; palpi black-brown, yellow at base and on inner side; pectus and legs yellow tinged with rufous; abdomen fuscous brown slightly tinged with grey, the ventral surface rufous except at extremity. Fore wing brown-pink with a slight greyish gloss and sparsely irrorated with black, the inner area and the terminal area from below apex to vein 2 suffused with chocolate-red, the veins with slight dark streaks, the costal edge rufous; antemedial line brown, erect to subcostal nervure, excurved to vein 1, then curved inwards to inner margin; an oblique band red-brown on inner side, black-brown on outer from middle of costa to tornus; a slight brown subterminal line slightly angled outwards below veins 9, 7, 4 and ending on termen above tornus; cilia dark brown. Hind wing dark brown, the apical area chocolate-red to vein 2. Underside of fore wing fiery red with some white suffusion on terminal half of costa; hind wing fiery red, the apical area slightly irrorated with brown.

♀. Fore wing with the band somewhat inwardly oblique; hind wing wholly brown.

Hab. Br. N. Guinea (*Le Hunte*), type † ♂ in Coll. Rothschild, Ekeikei (*Pratt*), type † ♂ *sanguinea* in Coll. Bethune-Baker. *Exp.* ♂ 48, ♀ 43 millim.

6921. Careades plagioscia.

Carea plagioscia, Turner, Tr. R. Soc. S. Austr. xxvii. p. 7 (1903).

♂. Head and thorax deep red-brown; pectus and legs orange; abdomen black-brown, the ventral surface orange except at extremity. Fore wing dark red-brown suffused with greyish except at base, on inner area, on costa beyond the postmedial line and on termen below apex; traces of an oblique waved antemedial line; a double line from middle of costa to tornus; traces of a subterminal punctiform line. Hind wing black-brown, underside of fore wing

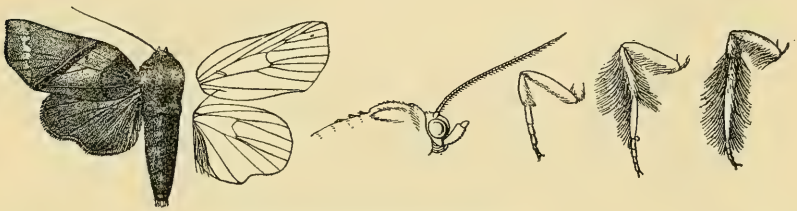


Fig. 206.— *Careades plagioscia*, ♂. ½.

dark brown, the costal and apical areas fiery red; hind wing fiery red.

♀. Fore wing with the antemedial line oblique below the cell, the postmedial line arising from costa well beyond middle, slightly excurved below costa then incurved.

Hab. Dutch N. Guinea, Fak-fak (*Pratt*), 1 ♂, Arfak Mts., Ninay Valley (*Pratt*), 2 ♀, Snow Mts., Octakwa R. (*Meek*), 1 ♂, 1 ♀; Queensland, Geraldton, Johnstone R., type † ♂ in Coll. Turner. *Exp.* 40 millim.

Sect. III. Fore wing with the costa hardly excised at middle, the termen evenly curved.

A. Hind wing red, the inner area fuscous.
  a. Fore wing with the postmedial line oblique from middle of costa to tornus.
    *a*¹. Fore wing crimson-red slightly irrorated with brown ... *obliqua*.
    *b*¹. Fore wing grey suffused with red-brown ..... *subrubra*.
  b. Fore wing with the postmedial line oblique from costa to vein 6, then erect ..... *fulva*.
B. Hind wing fuscous brown ..... *rubricosa*.

*6922. Careades obliqua. (Plate CLXXXVIII. fig. 26.)

Careades obliqua, Beth.-Baker, Nov. Zool, xiii. p. 245 (1906).

♂. Head and thorax red-brown tinged with crimson; palpi, pectus, and legs crimson-red; abdomen greyish fuscous, whitish at

base and slightly tinged with red at extremity, the anal tuft and ventral surface crimson-red tinged with brown at extremity. Fore wing crimson-red with slight black irroration, the costal edge redder, the inner area somewhat deeper red, the costal area with slight silvery suffusion to beyond middle; a faint curved rufous antemedial line slightly defined by silvery suffusion on inner side, a slight dark point in middle of cell; a rufous line slightly defined by silver on outer side from middle of costa to tornus; a rather diffused maculate blackish subterminal line ending on termen above tornus; cilia deep red-brown. Hind wing bright orange-red, the inner area fuscous. Underside of both wings crimson-red with some black irroration on apical areas; hind wing with the inner area whitish with the tuft of hair deep red.

♀. Darker; fore wing with the postmedial line not oblique and slightly waved.

Hab. Br. N. Guinea, Mt. Kebea (*Pratt*), type † ♂ in Coll. Bethune-Baker. *Exp.* 44 millim.

*6923. Careades subrubra.

Careades subrubra, Beth.-Baker, Nov. Zool. xiii. p. 245 (1906).

♂. Head, tegulæ, and patagia reddish chocolate-brown, the vertex of thorax crimson-red; palpi crimson-red behind, whitish at base in front; pectus and legs whitish suffused with crimson-red, the tarsi ringed with white; abdomen fuscous brown mixed with greyish and slightly tinged with red towards extremity, the ventral surface suffused with crimson-red and with brown at extremity. Fore wing grey suffused with red-brown deepest on basal area and

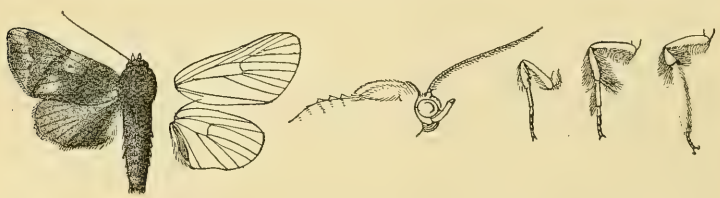


Fig. 207.—*Careades subrubra*, ♂. ½.

on termen from below apex to vein 2 and slightly irrorated with black, the costal edge white towards base, the base of inner margin white; an oblique slightly curved brown antemedial line; black points in end of cell and on discocellulars; a brown line defined on inner side by diffused red-brown from middle of costa to tornus; a diffused whitish subterminal band with slightly waved inner edge with some fuscous on it towards costa, ending on termen above tornus; cilia chocolate-brown. Hind wing deep fiery red, the inner area fuscous fringed with ochreous hair at base and white hair towards tornus. Underside of fore wing orange-red, the apical area brownish with white suffusion on costa. Hind wing orange-

red, the apical area slightly irrorated with black, the inner area whitish with the tuft of hair deep red.

♀. Redder; fore wing with the ante- and postmedial lines double, the latter less oblique with orange-red before and beyond it at costa.

Hab. Br. N. Guinea, Mt. Kebea (*Pratt*), type † ♂ in Coll. Bethune-Baker, Dinawa. *Exp.* 42 millim.

*6924. Careades fulva. (Plate CLXXXVIII. fig. 27.)

Careades fulva, Beth.-Baker, Nov. Zool. xiii. p. 244 (1906).

♂. Head and thorax reddish olive-brown, the prothorax with white scales below tegulæ, the dorsum of thorax ochreous yellow; palpi crimson behind and with some white scales towards tips; lower part of frons white; antennæ with the basal joint white on outer side; pectus and legs pale red, the fore and mid femora at extremities and tibiæ at base white, the fore tibiæ and tarsi red-brown in front irrorated with white; abdomen brown suffused with silvery grey and with red at extremity, the ventral surface deep crimson, black-brown at extremity, the genital tufts yellowish white. Fore wing olive-brown tinged with red, the costa slightly irrorated with silver; minute blackish spots in cell towards extremity and on discocellulars; postmedial line indistinct, dark, slightly defined by silver on outer side, and very oblique from costa to vein 6, then more prominent and defined by silvery white, erect and ending near tornus; a diffused subterminal band of silvery white expanding inwardly on costal area and ending on termen just above tornus; cilia red. Hind wing bright orange-red, the inner area clothed with silvery grey hair. Underside of both wings red; fore wing with some white at base of costa and at apex; hind wing with brown suffusion on apical area, the inner area whitish.

♀. Pinker; fore wing with slight dark antemedial line, the postmedial line evenly curved to vein 2 then angled outwards and oblique to inner margin; hind wing paler.

Hab. Br. N. Guinea, Mt. Kebea (*Pratt*), type † ♂ in Coll. Bethune-Baker, Ekeikei. *Exp.* ♂ 50, ♀ 45 millim.

6925. Careades rubricosa. (Plate CLXXXVIII. fig. 28.)

Careades rubricosa, Beth.-Baker, Nov. Zool. xiii. p. 245 (1906).

♀. Head and thorax deep crimson; palpi white in front and brown at tips; pectus and legs pure white, the tibiæ slightly irrorated with brown and the tarsi tinged with crimson; abdomen black-brown slightly mixed with grey, the anal tuft and ventral surface crimson-red, the latter with white mixed at base. Fore wing deep crimson suffused with silvery purple except an oblique band from base of costa to inner margin, before postmedial line and on terminal area from below apex to vein 2 and with slight black irroration; antemedial line indistinct, dark, oblique from costa to

median nervure, then more erect; black points in end of cell and on discocellulars; postmedial line double, blackish filled in with silvery purple, the outer line indistinct, slightly excurved below costa, then more erect; cilia purple mixed with blackish. Hind wing fuscous brown, the cilia fiery red, pale towards tornus. Underside of fore wing fiery red tinged with purple on costal area, the inner half brown except on terminal area, the apex with slight whitish suffusion; hind wing fiery red, the inner half whitish except at termen.

♂. Fore wing more chocolate-brown and less red, the postmedial line oblique from middle of costa to tornus.

Hab. Dutch N. Guinea, Snow Mts., Octakwa R. (*Meek*), 1 ♂, 2 ♀; Br. N. Guinea, Ekeikei (*Pratt*), type † ♀ in Coll. Bethune-Baker. *Exp.* 44 millim.

Genus **CAREA**.

	Type.
Carea, Wlk. x. 474 (1856)	*varipes.*
Dabarita, Wlk. x. 478 (1856)	*subtilis.*
Didigua, Wlk. Journ. Linn. Soc., Zool. vi. p. 181 (1862)	*seticornis.*
Chora, Wlk. Journ. Linn. Soc., Zool. vi. p. 188 (1862)	*repandens.*
Ranaja, Moore, Lep. Atk. p. 121 (1882)	*fasciata.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about middle of frons and moderately scaled, the 3rd minute, porrect, frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed with hair only and without crests; mid and hind tibiæ fringed with long hair; the hind tibiæ of male typically very short with minute terminal spur on outer side only, the 1st joint of tarsus very long, strongly dilated and fringed with long hair on inner side; abdomen with dorsal crests on two basal segments. Fore wing with the apex somewhat produced, the termen not crenulate; veins 3 and 5 from near angle of cell; 9 from 10 anastomosing with 8 to form a long areole; 6 from the areole or from angle of cell; 11 from cell. Hind wing with veins 3, 4 from angle of cell, rarely stalked; 5 fully developed from or from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Fore wing with the termen excised below apex, excurved at middle and excised below vein 4.

A. (*Dabarita.*) Hind tibiæ of male with minute terminal spur on inner side only.

6926. **Carea subtilis.**

Dabarita subtilis, Wlk. x. 479 (1858); Snell. Tijd. v. Ent. xxiii. p. 76, pl. 6. f. 5 (1880); Moore, Lep. Ceyl. ii. p. 117, pl. 123. ff. 3, 3 *a*; Hmpsn. Moths Ind. ii. p. 422.

Head and thorax flesh-pink; palpi brownish, the 1st joint white in front; pectus and legs white, the fore and mid tibiæ and tarsi rufous in front, the fore tarsi blackish towards extremity; abdomen white dorsally suffused with flesh-pink, the crests brownish. Fore wing flesh-pink suffused with violaceous white and sparsely irrorated with black; antemedial line brown, very indistinctly double, oblique, from costa to middle of inner margin; a black discoidal point; postmedial line double, brown, incurved, from costa towards apex to tornus, a faint red-brown shade before it narrowing to a point at submedian fold; cilia dark brown at tips. Hind

wing semihyaline white, the termen slightly tinged with pink from apex to vein 2, more strongly in female; the underside with the costal area and terminal area to vein 2 slightly tinged with pink and irrorated with brown.

Ab. 1. Fore wing with the shade before the postmedial line much stronger.

Ab. 2. Head, thorax, and fore wing much whiter; hind wing without any pink on termen on upperside.

Ab. 3. Fore wing with the inner area suffused with dark brown, the lines almost obsolete.

Ab. 4. Head, thorax, and fore wing suffused with chocolate-brown.

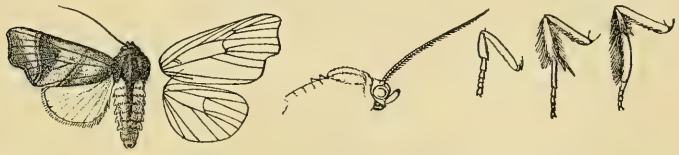


Fig. 208.—*Carea subtilis*, ♂. ½.

Hab. Punjab (*Horne*), 3 ♂, 1 ♀ type, Almorah (*Boys*), 1 ♀, Masuri, 1 ♂, 1 ♀, Manpuri, 1 ♂; N.E. Bengal, 2 ♂; Bombay, Mhow (*Forsayeth*), 1 ♂, 2 ♀, Kanara (*Ward*), 1 ♀; Ceylon; Andamans; Java (*Horsfield*), 7 ♂, 4 ♀; Celebes. *Exp.* 30–46 millim.

Larva. Forsayeth, Trans. Ent. Soc. 1884. p. 408, pl. 14. ff. 4, 4*a*.

Thoracic somites very much swollen and green; abdominal somites pale red-brown with white, reddish, and brown lateral lines, a dorsal tubercle on anal somite.

B. Hind tibiæ of male with two pairs of spurs, the inner spurs very long.
  a. Fore wing with the orbicular, reniform, and a patch below the cell green defined by ochreous ..... *chlorostigma*.
  b. Fore wing without green markings and with numerous striæ and ridges of scales ..... *annæ*.

6927. Carea chlorostigma.

Carea chlorostigma, Hmpsn. Ill. Het. B.M. ix. p. 101, pl. 159. f. 12 (1893); id. Moths Ind. ii. p. 422.

♀. Head and base of tegulæ yellow mixed with fiery red; antennæ brown; tegulæ with medial sap-green band and grey-brown tips; thorax purplish grey tinged with red-brown; pectus and femora white, the tibiæ and tarsi yellow mixed with fiery red; abdomen grey tinged with brown, the crest on 2nd segment and the anal tuft rufous, the ventral surface white. Fore wing violaceous grey tinged with red-brown and sparsely irrorated with black, the costal edge rufous; antemedial line very indistinct, red-brown, slightly excurved at median nervure; claviform a round sap-green spot defined by white in submedian interspace; orbicular and reniform sap-green defined by white, the former round, the latter

somewhat constricted at middle; postmedial line red-brown, obliquely bent outwards below costa, slightly incurved at discal fold and strongly below vein 3; some chocolate-brown suffusion beyond it on costa; cilia chocolate-brown. Hind wing white tinged with fiery red especially on terminal area. Underside of both wings suffused with fiery red; hind wing with the costal area and terminal area to vein 2 irrorated with brown.

Ab. 1. Fore wing with the claviform larger, more elliptical and extending to below vein 1.—Sikhim, Borneo.

The Sikhim specimen has veins 3, 4 of hind wing strongly stalked.

Hab. Sikhim (*Dudgeon*), 1 ♀; Travancore, Trevandrum (*Fergusson*), 1 ♀; Ceylon, Kelani Valley (*Butt*), 1 ♀ type; Borneo, Kuching (*Shelford*), 1 ♀. *Exp.* 28–36 millim.

Cocoon. Pale rufous with thorn-like excrescences.

6928. Carea annæ.

Carea annæ, Swinh. Trans. Ent. Soc. 1904, p. 140.

♂. Head and thorax rufous with a purplish tinge, the upper part of frons, vertex of head, and dorsal streak on tegulæ chocolate-brown; the fore legs and mid tibiæ and tarsi above red-brown, the hind tarsi red-brown ringed with white; abdomen grey-brown, a dorsal streak and the extremity purplish red, the ventral surface white at base, red-brown towards extremity. Fore wing pale red-brown tinged with greyish purple and with very numerous slight blackish striæ and ridges of scales, more prominent at base and on costal area to end of cell; a subbasal black point in cell and a discoidal point; a faint dark shade below and beyond end of cell;

Fig. 209.—*Carea annæ*, ♂. ½

subterminal line represented by some rather diffused silvery white striæ from vein 5 to tornus; a fine blackish terminal line; cilia and cilia of inner margin bright rufous. Hind wing pale grey-brown suffused with purple-pink from lower angle of cell to termen from apex to submedian fold; cilia pink at base, whitish at tips. Underside of fore wing purplish red, the costal area irrorated and striated with white, the apical area greyish, the terminal area purple with black striæ from vein 7 to 2; hind wing with the costal half purple with dark striæ except at base, the inner half white with some purple striæ in submedian fold.

Ab. 1. Head, thorax, and fore wing pale ochreous brown; hind wing with hardly a trace of purple suffusion.

♀. Head, thorax, and fore wing brick-red, the last with an indistinct dark antemedial shade from costa to median nervure and a shade further from base in submedian interspace, the shade below end of cell darker, an obscure diffused dark postmedial line excurved below costa and at middle and incurved at discal and submedian folds.

Ab. 2. Fore wing more prominently striated with black; hind wing dark brown.

Hab. Singapore (*Ridley, Meade-Waldo*), 2 ♂, 2 ♀; Borneo, Kuching (*Shelford*), 2 ♂, 2 ♀ type. *Exp.* 34–40 millim.

Sect. II. Fore wing with the termen excised below apex and excurved at middle, but not excised below vein 4.

A. Hind wing red, the inner area brown ..... *diplogramma.*
B. Hind wing fuscous brown ... . *holophæa.*

6929. Carea diplogramma. (Plate CLXXXVIII. fig. 6.)

Carea diplogramma, Hmpsn. A. M. N. H. (7) xvi. p. 594 (1905).

♀. Head and tegulæ dark red-brown; frons greyish at base; thorax rufous; pectus and legs pale; abdomen dorsally fuscous, ventrally rufous. Fore wing rufous, the costal and inner areas slightly tinged with brown; an indistinct oblique antemedial line, slightly angled outwards at median nervure; a slight discoidal striga; a double line from costa near apex to tornus. Hind wing fiery red, the inner area fuscous brown. Underside pale fiery red; fore wing with the costal area greyish; hind wing with the inner area whitish, traces of a dark subterminal line except towards tornus.

Hab. Straits Settlements, Johore (*Ridley*), 1 ♀ type. *Exp.* 40 millim.

6930. Carea holophæa.

Carea holophæa, Hmpsn. A. M. N. H. (7) xvi. p. 595 (1905).

♀. Head and tegulæ black-brown; palpi rufous, greyish in front; frons at base and basal joint of antennæ in front whitish;

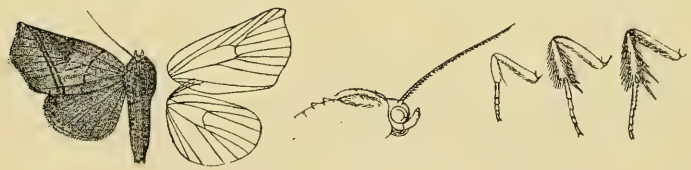


Fig. 210.—*Carea holophæa*, ♀. ½.

thorax rufous more or less tinged with grey; pectus and legs greyish, the fore legs dark in front; abdomen fuscous, ventrally rufous. Fore wing rufous more or less suffused with grey; an

indistinct dark subbasal line from costa to submedian fold; a pale green subbasal patch on inner margin; antemedial line fine, black, obliquely excurved from subcostal nervure to inner margin; a large triangular patch of blackish suffusion on costa before the double oblique black postmedial line, extending to below lower angle of cell; a slight fuscous tinge on termen below apex. Hind wing fuscous brown with a slight rufous tinge; termen and cilia rufous. Underside fiery red, the costal area tinged with grey towards apex; hind wing with the inner half whitish.

Hab. Straits Settlements, Johore (*Ridley*), 1 ♀, Perak Hills (*Ridley*), 1 ♀ type. *Exp.* 34 millim.

Sect. III. (*Carea.*) Fore wing with the costa slightly excised beyond middle, the termen excurved at middle but not excised below apex and vein 4. Hind tibiæ of male with minute terminal spur on outer side only.

A. Hind wing orange-yellow ..... *flava.*
B. Hind wing orange-red.
  a. Hind wing with the inner area not fuscous brown..... *varipes.*
  b. Hind wing with the inner area fuscous brown.
    a^1. Fore wing without ante- and postmedial black-brown patches on costa..... *tumida.*
    b^1. Fore wing with ante- and postmedial black-brown patches on costa ..... *costiplaga.*
C. Hind wing fuscous brown ..... *repandens.*

*6931. Carea flava. (Plate CLXXXVIII. fig. 7.)

Carea flava, Beth.-Baker, Nov. Zool. xiii, p. 242 (1906).

♀. Head and thorax flesh-red; palpi deep red-brown at sides; antennæ brown; pectus and legs pure white, the front of pectus, fore legs in front and tarsi brown; abdomen brick-red, the anal tuft greyish black, the ventral surface flesh-pink, white at base. Fore wing flesh-pink suffused with crimson-red to beyond middle; subbasal line represented by a slight oblique dark striga from costa; antemedial line very oblique and ending at submedian fold, blackish towards costa, then obsolescent; a diffused greyish streak in submedian fold on medial area; black points in end of cell and on discocellulars and a bifid black mark beyond lower angle of cell; postmedial line double, blackish filled in with some white, strongly bent outwards below costa, then oblique and very slightly incurved, a slight diffused fuscous streak before it below vein 7 and some fuscous and white above its angle on costa; a very faint diffused dark subterminal line with slight fuscous marks on it towards costa, somewhat excurved at middle; cilia red, fuscous towards tornus. Hind wing orange-yellow, whitish at base; cilia red from apex to vein 2, then white. Underside of fore wing orange-yellow, the costal and terminal areas suffused with red, a diffused white streak on postmedial part of costa; hind wing white, the costal area tinged with red, the area from cell to termen orange-red irrorated with brown.

Hab. Br. New Guinea, Mt. Kebea (*Pratt*), type † ♀ in Coll. Bethune-Baker. *Exp.* 48 millim.

6932. Carea varipes.

Carea varipes, Wlk. x. 475 (1856); Moore, Lep. Ceyl. ii. p. 116, pl. 123. ff. 1, 1 *a*; Hmpsn. Moths Ind. ii. p. 423.
Chora curvifera, Wlk. Journ. Linn. Soc., Zool. vi. p. 188 (1862).
Dabarita rhodophila, Wlk. xxxiii. 718 (1865).

Head and thorax brick-red, the head and tegulæ rather paler; palpi chocolate-red, pale in front; antennæ with the basal joint white at sides; pectus and legs pure white, the fore legs in front and the mid and hind tibiæ and tarsi above chocolate-red; abdomen chocolate-red, pale red at sides and below. Fore wing bright red with a slight silvery grey gloss especially beyond the postmedial line and very slight black irroration; black points in cell towards extremity and on discocellulars; a double incurved blackish line

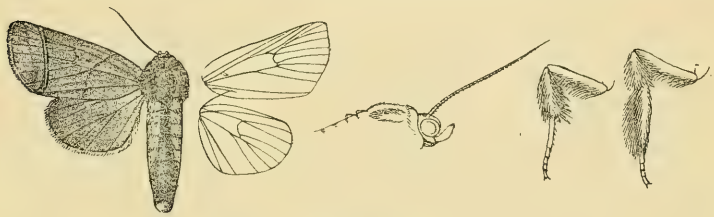


Fig 211.—*Carea varipes*, ♂. ½.

from costa towards apex to tornus, a faint brownish shade before it on costal area; cilia bright rufous, blackish and white at tornus. Hind wing orange-red; the underside tinged with purplish and irrorated with fuscous, the inner area white.

Ab. 1. *curvifera*. Fore wing with a patch of black suffusion at lower angle of cell.

Ab. 2. *rhodophila*. Fore wing with the postmedial line more prominent and with olive suffusion before it on costa.

Ab. 3. Head and thorax grey-brown; abdomen purplish grey, blackish at extremity; fore wing purplish grey tinged in parts with olive.

Hab. Hongkong (*T. B. Fletcher*), 1 ♂; Assam (*Badgley*) 1 ♀; Ceylon, 2 ♀; Penang (*Ridley*), 1 ♀; Singapore (*Ridley*), 5 ♀; Borneo, 1 ♀; Java (*Horsfield*), 1 ♂, 1 ♀ type *rhodophila*. *Exp.* 42–46 millim.

Larva. Thoracic somites very much dilated, an elongate conical tubercle on 11th somite; colour purplish or greenish olive-brown, a purplish white stripe from 3rd to 11th somites; head small, red.

Cocoon. Compact, oval with a conical dorsal projection in front.

6933. Carea tumida. (Plate CLXXXVIII. fig. 30.)

Carea tumida, Hmpsn. A. M. N. H. (7) xvi. p. 594 (1905).

Head and thorax deep rufous; palpi blackish; frons whitish at base with blackish bars above and between antennæ; tegulæ with

black line near base; fore legs blackish in front; pectus whitish; abdomen rufous, dorsally tinged with fuscous. Fore wing bright rufous suffused with silky grey on inner area, as a wedge-shaped patch from basal half of costa to near tornus, and from postmedial line to near termen; subbasal line represented by an oblique black striga from costa; an indistinct, oblique, slightly curved antemedial line; postmedial line double, black, from costa beyond middle to tornus; an indistinct subterminal line, somewhat oblique and maculate from costa to vein 6 and obscurely angled inwards at vein 5. Hind wing fiery red, the inner area fuscous brown. Underside fiery red; fore wing with the apical area suffused with grey; hind wing tinged with grey.

Hab. Penang (*S. S. Flower*), 1 ♀; Singapore (*Ridley*), 1 ♂; Borneo, Sadong (*Shelford*), 1 ♂, 1 ♀ type. *Exp.* 48 millim.

6934. Carea costiplaga. (Plate CLXXXVIII. fig. 8.)

Carea costiplaga, Swinh. A. M. N. H. (6) xii. p. 262 (1893); Hmpsn. Moths Ind. ii. p. 424.

Head and thorax red-brown tinged with purplish grey; pectus whitish; abdomen fuscous brown, the extremity greyish, the ventral surface fiery red. Fore wing purple-grey slightly irrorated with blackish; a subbasal black striga from costa; a conical antemedial black-brown patch on costa with oblique line from it to middle of inner margin, sometimes with faint green suffusion beyond it below the cell; a black discoidal point; a large truncate conical black-brown patch on postmedial area from costa to discal fold with an obliquely curved line from its inner edge to inner margin; the subterminal line represented by a faint dark shade below the patch; cilia dark brown from apex to vein 2. Hind wing purplish red, the inner area grey suffused with brown; the underside paler, the apical area slightly irrorated with brown, the inner area grey.

Hab. Assam, Sibsagar, 3 ♀ type; Andamans, 1 ♂; Borneo, Sandakan (*Pryer*), 1 ♂. *Exp.* 36 millim.

6935. Carea repandens.

Chora repandens, Wlk. Journ. Linn. Soc., Zool. vi. p. 188 (1862).
Cosmia sundana, Feld. Reis. Nov. pl. 110. f. 38 (1872).

♀. Head and thorax deep chocolate-red; palpi white in front; pectus and legs white, the fore femora rufous above, the fore tibiæ and the tarsi irrorated with rufous; abdomen purplish grey-brown, the ventral surface white tinged with rufous. Fore wing chocolate-red suffused with silvery purple except on basal area, before the postmedial line and on termen; the costal edge whitish at base; antemedial line oblique, slightly waved, bent inwards to inner margin; a black discoidal point; postmedial line double filled in with silvery purple, oblique and ending at tornus; traces of a punctiform dark subterminal line defined on outer side by whitish, angled outwards at vein 7 and middle. Hind wing fuscous brown,

the cilia rufous. Underside of fore wing brown with the costal and terminal areas red, the costal area with slight dark irroration; hind wing irrorated with black, the inner area brownish white.

Ab. 1. *sundana*. Head and thorax black-brown; abdomen fuscous; fore wing with the ground-colour purplish black-brown.

Hab. Straits Settlements, Perak, Larut Hills (*Flower*), 1 ♀; Singapore (*Ridley*), 1 ♀; Borneo, 1 ♀, Sarawak (*Wallace*), type † in Mus. Oxon., Busan (*Moir*), 1 ♀; Amboina; Celebes, Makian. *Exp.* 36–44 millim.

Sect. IV. Fore wing with the costa evenly curved.

A. (*Ranaja.*) Hind tibiæ of male very short with terminal spur on outer side only, the first joint of tarsus very long, dilated and fringed with hair on inner side.

a. Fore wing with the postmedial line oblique and almost straight throughout.

a^1. Hind wing red or reddish.

a^2. Hind wing with the inner area not suffused with brown.

a^3. Fore wing without dark suffusion beyond the ante- and postmedial lines.

a^4. Hind wing with the basal area whitish.

a^5. Fore wing chestnut-red without purplish suffusion ..... *unipunctata.*

b^5. Fore wing chocolate-red suffused with purple ..... *purpurea.*

b^4. Hind wing with the basal area not whitish. *biviata.*

b^3. Fore wing with dark suffusion beyond the ante- and postmedial lines ..... *tarica.*

b^2. Hind wing with the inner area suffused with brown

a^3. Fore wing with some olive-green suffusion.

a^4. Hind wing whitish slightly tinged with red... *dione.*

b^4. Hind wing strongly suffused with red ..... *nitida.*

b^3. Fore wing without olive-green suffusion.

a^4. Fore wing crimson-red suffused with purplish grey ..... *parallelaria.*

b^4. Fore wing rufous not suffused with purple... *obvia.*

b^1. Hind wing uniform fuscous brown.

a^2. Fore wing with the lines strong, the antemedial line very oblique ..... *mathilda.*

b^2. Fore wing with the lines fine, the antemedial line much less oblique ..... *pryeri.*

b. Fore wing with the postmedial line excurved below costa and incurved below vein 4.

a^1. Fore wing with the postmedial line not incurved at discal fold.

a^2. Hind wing with the inner area not suffused with brown.

a^3. Fore wing with numerous slight silvery striæ and oblique shade from apex to middle of inner margin ..... *pratti.*

b^3. Fore wing without silvery striæ or oblique shade from apex to inner margin.

a^4. Fore wing with the antemedial line angled inwards in cell and submedian fold ..... *rubrifusa.*

b^4. Fore wing with the antemedial line obliquely excurved ..... *devia.*

b^2. Hind wing with the inner area suffused with brown ..... *moira.*
b^1. Fore wing with the postmedial line incurved at discal fold.
a^2. Hind wing red or tinged with red.
a^3. Hind wing with the inner area not suffused with brown.
a^4. Fore wing with oblique shade from costa towards apex to middle of inner margin ..... *diagona.*
b^4. Fore wing without oblique shade from costa towards apex to inner margin..... *obsolescens.*
b^3. Hind wing with the inner area suffused with brown.
a^4. Fore wing with the costal edge white.
a^5. Hind wing whitish faintly tinged with red. *pallida.*
b^5. Hind wing fiery red.
a^6. Fore wing not tinged with purple ..... *leucocraspis.*
b^6. Fore wing tinged with purple ..... *endophæa.*
b^4. Fore wing with the costal edge not white.
a^5. Fore wing not strongly suffused with purple and without white shade beyond the antemedial line ..... *internifusca.*
b^5. Fore wing strongly suffused with purple and with white shade beyond the antemedial line..... *ocyra.*
b^2. Hind wing wholly brown.
a^3. Hind wing red-brown..... *metaphæa.*
b^3. Hind wing fuscous brown ..... *fasciata.*
c^2. Hind wing white.
a^3. Hind wing with the apical area tinged with red.
a^4. Fore wing rufous, the subterminal line not defined by bluish white spots ..... *albirufa.*
b^4. Fore wing chocolate-red, the subterminal line defined by bluish white spots ..... *robinsoni.*
b^3. Hind wing with the apical area not tinged with red.
a^4. Hind wing with the inner area suffused with brown .... *albopurpurea.*
b^4. Hind wing with the inner area not suffused with brown..... .... *albipicta.*

6936. **Carea unipunctata.** (Plate CLXXXVIII. fig. 9.)

Carea unipunctata, Beth.-Baker, Nov. Zool. xiii. p. 242 (1906).

Head and thorax deep chestnut-red; pectus and legs white, the fore femora and tibiæ on inner side and the mid tibia on outer side streaked with red, the tuft on inner side of hind leg brown, the tarsi with dark bands; abdomen pale red with deep red crests and dorsal ridge and white point on 1st segment, the ventral surface white at base. Fore wing deep chestnut-red very slightly irrorated with black scales; a slight outwardly oblique sinuous medial line blackish towards inner margin; a blackish discoidal point; traces of an outwardly oblique sinuous postmedial line; cilia dark red except towards tornus. Hind wing pale red, the basal and inner areas whitish tinged with red; the underside with the costal half red, the inner half white.

Hab. Dutch N. Guinea, Arfak Mts. Ninay Valley (*Pratt*), 1 ♂, 1 ♀; Br. N. Guinea, Mt. Kebea (*Pratt*), type † ♂ in Coll. Bethune-Baker; Queensland, Kuranda (*Dodd*), 1 ♀. *Exp.* 40 millim.

6937. Carea purpurea.

Carea purpurea, Hmpsn. Ill. Het. B.M. viii. p. 59, pl. 141. f. 9 (1891), nec f. 4; id. Moths Ind. ii. p. 423.

Head and thorax deep chocolate-red; palpi dark brown, white in front; antennæ with the basal joint white at outer side; pectus and legs white, the fore and mid tibiæ suffused with dark brown, the tarsi dark brown ringed with white; abdomen grey-brown, the anal tuft rufous, the ventral surface white suffused with fiery red towards extremity. Fore wing deep chocolate-red with a silvery purple gloss and slightly irrorated with black, the costal edge redder; antemedial line slight, blackish, oblique from costa to middle of inner margin; a black discoidal point; postmedial line indistinct, blackish, very oblique to vein 6, then oblique to inner margin near tornus; subterminal line only represented by the terminal area being faintly paler; cilia blackish at tips. Hind wing white, the terminal half suffused with fiery red; the underside with the costal area and terminal area to vein 2 suffused with fiery red and irrorated with brown.

Hab. Madras, Nilgiris (*Hampson*), 1 ♂, 1 ♀ type; Travancore, Pirmád (*Imray*), 1 ♂. *Exp.* 28–36 millim.

6938. Carea biviata. (Plate CLXXXVIII. fig. 10.)

Carea biviata, Hmpsn. A. M. N. H. (7) xvi. p. 595 (1905).

♂. Head and thorax fiery red mixed with some yellow; fore tibiæ and tarsi tinged with fuscous; pectus and mid and hind legs whitish; abdomen grey tinged with rufous, the anal tuft blackish. Fore wing fiery red sparsely irrorated with black; the base of inner area yellowish, the apical area tinged with grey; an oblique straight dark line from costa before middle to middle of inner margin; an oblique line from costa beyond middle to tornus, slightly excurved below costa, the inner margin dark except towards base. Hind wing pale fiery red; the underside whitish with the costal and terminal areas irrorated with brown.

♀. Fore wing with the ground-colour nearly uniform fiery red; the lines slightly more diffused, the postmedial line hardly excurved below costa; a dark discoidal point.

Ab. 1. ♀. Similar to the male.

Hab. Penang (*S. S. Flower*, *Ridley*), 1 ♂, 1 ♀ type; Perak, Larut Hills (*S. S. Flower*), 1 ♀; Borneo, Sandakan (*Pryer*), in Coll. Druce. *Exp.* ♂ 32, ♀ 40 millim.

6939. Carea tarica. (Plate CLXXXVIII. fig. 11.)

Carea tarika, Swinh. A. M. N. H. (7) vii. p. 492 (1901).

♂. Head and thorax purplish grey mixed with red-brown and dark brown; abdomen fiery red, dorsally suffused with brown. Fore wing greyish suffused with purple and with slight dark irroration, the terminal area pale; antemedial line dark brown, diffused on outer side, oblique and slightly incurved; a small dark spot in end of cell and small discoidal lunule; postmedial line dark, very oblique to vein 6, then oblique to tornus, a patch of dark brown suffusion beyond it on costal area, extending to the slight dark subterminal line which is angled inwards at discal fold and outwards at veins 4, 3; cilia dark brown. Hind wing yellow tinged with red. Underside of both wings yellow suffused with red; fore wing with some whitish suffusion on costa towards apex; hind wing with some purplish irroration on terminal area from apex to vein 3.

Ab. 1. Hind wing and underside redder.—N. Guinea.

Hab. Gilolo, 1 ♂ type; Dutch N. Guinea, Fak-fak (*Pratt*), 1 ♂. *Exp.* 36 millim.

6940. Carea dione. (Plate CLXXXVIII. fig. 12.)

Carea dione, Swinh. A. M. N. H. (7) xv. p. 159 (1905).

Vertex of head, tegulæ, and patagia olive-brown; palpi, frons, and dorsum of thorax pale purplish brown; pectus and legs white, the latter suffused with brown. Fore wing pale purplish brown with some olive suffusion on basal area, obliquely from costa beyond middle to tornus, and on apical area, the costal edge whitish; antemedial line dark, oblique, straight; postmedial line very indistinct except on inner area, oblique and almost straight; traces of a diffused subterminal line, angled outwards below vein 7 and excurved at middle; cilia red-brown, towards tornus with a white line at base and white tips. Hind wing white tinged with brick-red, the inner area with brown; the underside white, the costal area slightly irrorated with rufous.

Hab. Assam, Khásis, 1 ♂, 1 ♀ type. *Exp.* ♂ 38, ♀ 40 millim.

6941. Carea nitida. (Plate CLXXXVIII. fig. 13.)

Carea nitida, Hmpsn. Moths Ind. ii. p. 423 (1894).

Head and thorax dark brown mixed with red-brown; antennæ with the basal joint white on outer side; pectus and legs white mixed with purplish red, the tarsi ringed with white; abdomen grey-brown, the anal tuft red, the ventral surface white mixed with red. Fore wing purple-grey largely suffused with olive-brown, the costal edge white with some red-brown below it, some red at base of inner margin; antemedial line dark brown slightly defined on inner side by whitish, oblique, from costa to middle of inner

margin; postmedial line dark brown defined on outer side by whitish, oblique and slightly curved; subterminal line dark brown, oblique to below vein 7, angled inwards at discal fold, excurved and waved at middle, a whitish patch beyond it from vein 7 to below vein 3; cilia dark brown at base, red at tips. Hind wing brick-red, the inner area suffused with brown; cilia red, white at tips; the underside white tinged and irrorated with red, some purplish irroration on costa towards apex.

Hab. Sikhim (*Pilcher*), 1 ♀; Assam (*Badgley*), 1 ♀; Sumatra (*H. O. Forbes*), 1 ♂. *Exp.* 40 millim. Type † in Coll. Rothschild.

*6942. Carea parallelaria. (Plate CLXXXVIII. fig. 14.)

Carea parallelaria, Beth.-Baker, Nov. Zool. xiii. p. 242 (1906).

♂. Head and thorax deep crimson-red; fore tibiæ and tarsi pure white in front; abdomen grey suffused with fuscous, the extremity and ventral surface crimson. Fore wing deep crimson-red suffused with a purplish grey gloss except the postmedial area; fine oblique red ante- and postmedial straight lines. Hind wing pale orange-red, the inner area grey-brown. Underside of both wings pale red with the inner area whitish.

Hab. Br. N. Guinea, Mt. Kebea (*Pratt*), type † ♂ in Coll. Bethune-Baker, Ekeikei. *Exp.* 36 millim.

6943. Carea obvia, n. sp. (Plate CLXXXVIII. fig. 15.)

♂. Head and thorax rufous, lower part of frons white; antennæ with the basal joint white on outer side; pectus white; fore tibiæ ringed with white and white on outer side, the tarsi ringed with white; abdomen pale grey-brown, the extremity pale red, the ventral surface pale red, white at base. Fore wing rufous with a slight silky grey gloss and irrorated with a few dark scales; antemedial line red-brown, oblique, straight, from costa to middle of inner margin; a black discoidal point; postmedial line red-brown, oblique, slightly sinuous; traces of a subterminal slightly incurved dark line; cilia blackish at base, except towards tornus. Hind wing flesh-red, the basal area white, the inner area white suffused with brown; the underside white, the costal area and terminal area to vein 3 red irrorated with brown.

Hab. Philippines, Baquio (*Betton*), 1 ♂ type. *Exp.* 32 millim.

6944. Carea mathilda. (Plate CLXXXVIII. fig. 16.)

Carea mathilda, Swinh. Trans. Ent. Soc. 1904, p. 141.

♂. Head and thorax pale red-brown; pectus and legs whitish, the fore legs and tarsi suffused with reddish brown; abdomen grey-brown, the anal tuft pale reddish brown, the ventral surface white tinged with red-brown towards extremity. Fore wing pale red-

brown sparsely irrorated with black; the inner margin dark brown except towards base; a very oblique dark brown slightly curved line from costa before middle to inner margin well beyond middle; a black discoidal point; an oblique dark brown line from costa beyond middle to tornus; cilia dark brown. Hind wing fuscous brown, the cilia rufous. Underside of fore wing brown with the costal and terminal areas rufous, the costal area irrorated with dark brown; hind wing rufous irrorated with dark brown, the inner area grey-brown.

Hab. Borneo, Malang (*Shelford*), 1 ♂ type. *Exp.* 40 millim.

*6945. Carea pryeri. (Plate CLXXXVIII. fig. 17.)

Carea pryeri, Druce, A. M. N. H. (8) viii. p. 150 (1911).

♂. Head and thorax pale chocolate-brown; pectus and legs with some whitish; abdomen grey-brown, the ventral surface rufous, whitish towards base. Fore wing pale chocolate-brown with a silvery grey gloss especially on medial and terminal areas and slight blackish irroration; oblique straight chocolate-brown ante- and postmedial lines, the former ending at middle of inner margin, the latter at tornus; traces of a dark subterminal line towards costa; cilia dark chocolate-brown at base, rufous at tips and with some white at apex and above tornus. Hind wing brown with a faint reddish tinge. Underside of both wings pale red-brown with slight dark irroration; fore wing with some fuscous suffusion in and beyond end of cell; hind wing with the inner area grey-brown.

Hab. N. Borneo (*Pryer*), type † ♂ in Coll. Druce. *Exp.* 42 millim.

6946. Carea pratti. (Plate CLXXXVIII. fig. 18.)

Carea pratti, Beth.-Baker, Nov. Zool. xiii. p. 243 (1906).

Head and thorax whitish more or less strongly tinged with rufous, the vertex of head and tegulæ more olive-brown; palpi rufous, dark brown in front; fore coxæ rufous, the tibiæ and tarsi chocolate-brown, the mid and hind tarsi dark brown mixed with grey; abdomen pale rufous. Fore wing pale pinkish red or whitish tinged with pinkish red and with numerous slight silvery striæ, the costal edge red-brown; a black discoidal point; a diffused very oblique red-brown line from apex to middle of inner margin and with traces of a slightly incurved postmedial line from it at vein 6 to inner margin; cilia red-brown. Hind wing fiery red, the basal area whitish; the underside with the costal area irrorated with a few brown scales, the inner area whitish.

Hab. Dutch N. Guinea, Arfak Mts., Ninay Valley (*Pratt*), 1 ♂; Br. N. Guinea, Mt. Kebea (*Pratt*), 3 ♂, 1 ♀. *Exp.* 44–46 millim.

6947. Carea rubrifusa. (Plate CLXXXVIII. fig. 19.)

Carea rubrifusa, Hmpsn. A. M. N. H. (7) xvi. p. 597 (1905).

♂. Head and thorax bright rufous; pectus, legs, and abdomen whitish brown. Fore wing whitish brown tinged with rufous, the basal area except at base of inner margin suffused with bright rufous to the antemedial line, which is oblique, angled outwards below costa and at median nervure and inwards in cell and submedian fold; a minute discoidal point; postmedial line rufous, obliquely incurved from costa to vein 6 where it is acutely angled outwards, then incurved, some rufous suffusion beyond it; an indistinct, somewhat diffused subterminal line incurved at discal fold; some rufous suffusion on termen from apex to vein 2. Hind wing whitish suffused with pale red. Underside whitish tinged with red.

Hab. Borneo, Sandakan (*Pryer*), 1 ♂ type. *Exp.* 40 millim.

6948. Carea devia, n. sp. (Plate CLXXXVIII. fig. 20.)

♂. Head, thorax, and abdomen pale rufous; palpi brownish at sides, white in front; pectus and legs white tinged with rufous, the tibiæ and tarsi irrorated with brown, the tarsi ringed with white; ventral surface of abdomen whitish at base. Fore wing brick-red sparsely irrorated with black; antemedial line brown, oblique, slightly excurved; a small black discoidal spot; postmedial line brown, excurved below costa, then oblique and slightly incurved; cilia with blackish mixed except towards costa. Hind wing white suffused with pinkish red except towards base; the underside white, the costal area and terminal area to vein 2 suffused with orange-red and irrorated with brown.

Hab. Assam, Khásis, 1 ♂ type. *Exp.* 36 millim.

6949. Carea moira. (Plate CLXXXVIII. fig. 21.)

Carea moira, Swinh. A. M. N. H. (6) xii. p. 262 (1893).
Carea fuscomarginata, Hmpsn. Moths Ind. ii. p. 424 (1894).

Head and thorax rufous; pectus white; legs rufous and white, the tarsi ringed with white; abdomen pale grey-brown, the ventral surface rufous, white at base. Fore wing rufous with a slight silvery gloss and irrorated with black, the costal edge redder; antemedial line slight, oblique, sinuous; a black discoidal point; postmedial line excurved from costa to vein 3, then incurved; traces of a diffused dark subterminal line, slightly angled outwards below vein 7 and excurved at middle; cilia dark brown at base, white at tips. Hind wing flesh-red, the basal area white, the inner area white suffused with brown; cilia white at tips; the underside white, the costal area and terminal area to vein 3 red irrorated with brown.

Hab. Assam, Khásis, 1 ♀ ; Burma, Mergui (*Doherty*), type † ♂ *fuscomarginata* in Coll. Druce; Straits Settlements, Penang (*Ridley*), 1 ♀, Selangor, 1 ♂ type, Perak, Singapore (*Ridley*), 6 ♂, 2 ♀ ; Borneo, Bidi (*Shelford*), 1 ♂, Matang (*Shelford*), 1 ♂, Sandakan (*Pryer*), 2 ♀. *Exp.* 36–40 millim.

6950. Carea diagona, n. sp. (Plate CLXXXVIII. fig. 22.)

♀. Head, thorax, and abdomen rufous; pectus and legs whitish suffused with rufous. Fore wing rufous sparsely irrorated with black; an oblique diffused brown shade from costa towards apex to middle of inner margin; traces of an oblique slightly sinuous antemedial line; postmedial line very indistinct, slightly excurved below costa and at middle; a subterminal series of small black spots, defined on outer side by white towards costa and almost obsolete towards inner margin, slightly excurved below vein 7. Hind wing white, the terminal half tinged with pinkish red; the underside white, the costal and terminal areas faintly tinged with pinkish and with brown irroration on terminal area.

♂. Head, thorax, and fore wing rather yellower.

Hab. Bhután (*Dudgeon*), 1 ♀ type; Perak (*Doherty*), ♂ in Coll. Druce. *Exp.* 36 millim.

6951. Carea obsolescens. (Plate CLXXXVIII. fig. 23.)

Carea obsolescens, Moore, Trans. Ent. Soc. 1884 p. 356; Hmpsn. Moths Ind. ii. p. 423.

Head and thorax bright rufous; antennæ with the basal joint white on outer side; pectus and legs whitish suffused with pinkish, the fore legs rufous; abdomen pale pinkish dorsally tinged with grey-brown except at extremity. Fore wing bright rufous with a silky gloss; antemedial line oblique, straight, from costa to middle of inner margin; postmedial line oblique, excurved below costa and at middle and incurved at discal fold; a subterminal series of faint dark spots, slightly excurved below vein 7; cilia fuscous at base. Hind wing white, the terminal half more or less strongly tinged with fiery red; the underside whitish, the costal area and terminal area more or less strongly tinged with fiery red.

Hab. Bombay, 1 ♂ type, Mahableshwar; Madras, Nilgiris (*Lindsay*), 1 ♀ ; Ceylon, Pundaloya (*Green*), 1 ♂. *Exp.* 40–42 millim.

6952. Carea pallida. (Plate CLXXXVIII. fig. 29.)

Carea pallida, Hmpsn. A. M. N. H. (7) xvi. p. 596 (1905).

♀. Head and thorax pale red-brown; abdomen pale brown; pectus and ventral surface of abdomen whitish. Fore wing pale red-brown, finely and thickly irrorated with dark brown; the costal edge pure white; an indistinct oblique antemedial line, very

slightly excurved below costa and incurved in submedian interspace; a black discoidal point; postmedial line rather indistinct, slightly excurved below costa and at middle, angled inwards at discal fold and incurved below vein 4; traces of a subterminal line excurved at vein 7 and middle; cilia whitish. Hind wing white faintly tinged with red and the inner area with fuscous; the underside white faintly tinged with red.

Hab. Burma, N. Shán States (*Bingham*), 1 ♀ type. *Exp.* 38 millim.

6953. Carea leucocraspis. (Plate CLXXXIX. fig. 1.)

Carea leucocraspis, Hmpsn. A. M. N. H. (7) xvi. p. 596 (1905).

♂. Head and thorax bright rufous; fore tibiæ and tarsi white in front; mid tibiæ white at base; abdomen pale fuscous brown. Fore wing bright rufous, the costal edge pure white; a very indistinct antemedial line oblique from costa to submedian fold; a very faint postmedial line excurved below costa and at middle; traces of a sinuous subterminal line. Hind wing fiery red, the inner area pale fuscous brown; the underside fiery red with the basal and inner areas whitish.

Hab. Ceylon, Gampola (*Mackwood*), 1 ♂; Borneo, Sandakan (*Pryer*), 1 ♂ type. *Exp.* 34–42 millim.

6954. Carea endophæa. (Plate CLXXXIX. fig. 2.)

Carea endophæa, Hmpsn. A. M. N. H. (7) xvi. p. 596 (1905).

Head and thorax deep chocolate-red; fore tibiæ and tarsi pure white in front; mid and hind tibiæ mostly white, the tarsi ringed with white; abdomen fuscous, the anal tuft white, the ventral surface fiery red. Fore wing deep chocolate-red tinged with purple; the costal edge pure white, the medial and terminal areas with a more or less prominent greyish gloss; two indistinct, rather diffused antemedial lines, very slightly excurved below costa and incurved in submedian interspace; a black discoidal point surrounded by a grey annulus; an indistinct, somewhat diffused postmedial line slightly angled outwards below costa and at middle with a still less distinct diffused red line beyond it, slightly excurved from costa to middle, then incurved; an indistinct dark somewhat dentate subterminal line with series of white points on its outer edge, slightly excurved at vein 7 and middle. Hind wing fiery red, the inner area to cell and vein 2 fuscous brown. Underside of both wings fiery red, the apices tinged with chocolate, the inner area of hind wing greyish.

Hab. Sikhim (*F. Möller*), 2 ♂, 1 ♀; Travancore, Pirmád (*Imray*), 4 ♂ type; Perak (*Doherty*), in Coll. Druce. *Exp.* 44 millim.

6955. Carea internifusca, n. sp.

Carea purpurea, Hmpsn. Ill. Het. B.M. viii. p. 59, pl. 141. f. 4 (nec f. 9).

Head and thorax deep chocolate-red; palpi fiery red at base; antennæ with the basal joint white on outer side; pectus and legs white suffused with fiery red; abdomen fuscous brown; the ventral surface fiery red. Fore wing deep chocolate-red tinged with violaceous grey and thickly irrorated with dark brown, the costal edge red; antemedial line brown, oblique, straight, from costa to middle of inner margin; a black discoidal point; postmedial line dark, oblique, excurved below costa and at middle and incurved at discal fold and below vein 3; a somewhat sinuous subterminal series of slight dark spots; cilia blackish at base, the tips red to vein 2, then white. Hind wing flesh-red, the basal area white, the inner area white suffused with brown; the underside white, the costal area and terminal area to vein 3 flesh-red irrorated with brown.

Hab. Assam, Khásis, 1 ♂ type; Madras, Nilgiris (*Hampson*), 2 ♀ type *purpurea*, ♀. *Exp.* ♂ 34, ♀ 44 millim.

6956. Carea ocyra. (Plate CLXXXIX. fig. 3.)

Carea ocyra, Swinh. A. M. N. H. (6) xii. p. 262 (1893).

♀. Head and thorax deep chocolate-red; palpi white in front at base; antennæ with the basal joint white on outer side; pectus and legs white, the latter irrorated with red-brown; abdomen greyish fuscous with white segmental lines, the anal tuft reddish, the ventral surface white tinged with red towards extremity. Fore wing deep chocolate-red mostly suffused with purple-grey; antemedial line indistinct, dark defined on outer side by white suffusion, oblique and straight from costa to middle of inner margin; postmedial line hardly traceable, excurved below costa and at middle and incurved at discal fold and below vein 3; subterminal line indistinct, dark defined on outer side by white suffusion, slightly excurved below vein 7 and very slightly waved at veins 4, 3. Hind wing brick-red, the costal area whitish to beyond middle, the inner area whitish suffused with brown; the underside white, the terminal area suffused with purplish brown from costa to vein 2.

Hab. Singapore (*Ridley*), 2 ♀ type. *Exp.* 36 millim.

6957. Carea metaphæa, n. sp. (Plate CLXXXIX. fig. 4.)

♂. Head and thorax bright red-brown; palpi, pectus, and legs whitish tinged with red-brown; abdomen red-brown tinged with grey, the anal tuft white, the ventral surface rufous, whitish at base. Fore wing red-brown suffused in parts with greyish brown, the costal edge white; antemedial line indistinct, dark, oblique and slightly sinuous; a blackish discoidal point; postmedial line

indistinct, dark, oblique, excurved below costa and at middle and incurved at discal fold; an indistinct dark subterminal line, excurved below vein 7 and at veins 4, 3; a fine whitish line at base of cilia. Hind wing red-brown, the inner area greyish brown; a fine whitish line at base of cilia; the underside pale red, the costal area and terminal area to vein 3 irrorated with brown.

Hab. Borneo, Kuching (*Shelford*), 1 ♂ type. *Exp.* 40 millim.

6958. Carea fasciata.

Ranaja fasciata, Moore, Lep. Atk. p. 121, pl. iv. f. 18 (1882); Hmpsn. Moths Ind. ii. p. 424.

♂. Head and thorax red-brown tinged with olive; antennæ with the basal joint white on outer side; pectus and legs white, the fore legs brown in front, the tarsi brown ringed with white; abdomen greyish fuscous, the anal tuft and ventral surface white. Fore wing pale purplish brown suffused in parts with olive, the costal edge pale; antemedial line olive-brown, oblique, straight; postmedial line olive-brown, indistinctly double, oblique, excurved

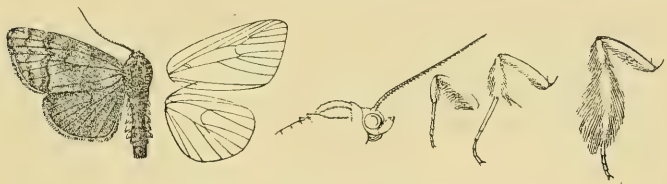


Fig. 212.—*Carea fasciata*, ♂. ½.

below costa and at middle and incurved at discal and submedian folds; subterminal line olive-brown, angled outwards below vein 7 and excurved at middle. Hind wing fuscous brown, the cilia whitish tinged with brown; the underside white, the costal area and terminal area to vein 2 irrorated with red-brown.

Hab. Sikhim; Assam, Khásis, 1 ♂. *Exp.* 38 millim.

6959. Carea albirufa. (Plate CLXXXIX. fig. 5.)

Carea albirufa, Hmpsn. Moths Ind. iv. p. 530 (1896).

Head and thorax bright rufous; palpi with the 1st joint white in front; antennæ with the basal joint white on outer side; pectus and legs white, the tibiæ irrorated with rufous, the tarsi rufous ringed with white; abdomen white dorsally suffused with grey-brown and with pale red at extremity above and below. Fore wing bright rufous slightly irrorated with black; antemedial line very indistinct, dark, oblique from costa to middle of inner margin and slightly sinuous; a black discoidal point; postmedial line indistinct, excurved below costa and at middle and incurved at discal fold and below vein 3; an indistinct dark subterminal line,

excurved below vein 7 and at middle. Hind wing pure white, the termen and cilia tinged with crimson-red from apex to vein 3.

Hab. Ceylon, Puttalam (*Pole*), 1 ♂ type, ♀ in Coll. Mackwood. *Exp.* 32 millim.

6960. Carea robinsoni. (Plate CLXXXIX. fig. 6.)

Carea robinsoni, Swinh. in Annan. & Robins. Fascic. Malay., Zool. i. p. 75 (1903).

♀. Head and thorax chocolate red-brown; palpi white at base; antennæ with the basal joint white on outer side; pectus and legs white, the fore femora chocolate-brown above, the tibiæ and tarsi banded with brown; abdomen dorsally suffused with grey-brown and red-brown, leaving slight white segmental lines, the anal tuft and ventral surface white. Fore wing chocolate red-brown; antemedial line indistinct, brown with some white scales on it, waved; some white scales on discocellulars; postmedial line brown with some white scales on it, excurved below costa and at middle and incurved at discal fold and below vein 3; subterminal line brown with a patch of white suffusion irrorated with brown before it from below costa to vein 5 and with white spots on outer side and an oblique mark from apex, then defined on each side by small white spots, minutely waved, excurved below vein 7 and at middle and incurved at discal fold; cilia with a series of white points at base, the tips white on inner half. Hind wing pure white, the apex suffused with red, the extremities of the veins with slight red streaks to vein 2; cilia with a red line through them from apex to vein 3; the underside with the costal area irrorated with red.

Hab. Straits Settlements, Selangor, Semangho (*Robinson*), 1 ♀ type. *Exp.* 36 millim.

6961. Carea albopurpurea. (Plate CLXXXIX. fig. 7.)

Carea albopurpurea, Hmpsn. Moths Ind. ii. p. 424 (1894); Swinh. A. M. N. H. (6) xv. p. 9 (1895).

Head, tegulæ, and front of thorax red-brown; antennæ with the basal joint white on outer side; thorax white slightly mixed with brown; the fore legs and mid tibiæ in front red-brown, the tarsi red-brown ringed with white; abdomen grey-brown, the anal tuft and ventral surface white. Fore wing white irrorated with red-brown, the costal area and inner area from antemedial line to tornus tinged with purplish grey, the costal edge rufous; subbasal line represented by double brown striæ from costa; antemedial line red-brown, oblique, sinuous; a slight red-brown discoidal lunule with oblique striga above it from costa, the area just beyond the cell tinged with yellow and the veins with brown streaks; postmedial line double, red-brown filled in with white, slightly excurved below costa and strongly at middle, incurved at discal fold and below vein 3; a red-brown subterminal line, punctiform except towards costa and tornus and slightly angled outwards below vein 7 and at

middle; cilia red-brown at base and yellow at tips from apex to vein 4, then white. Hind wing white, the inner area suffused with brown; the underside wholly white.

Hab. Assam, Khásis, 1 ♂ type. *Exp.* 30 millim.

6962. Carea albipicta. (Plate CLXXXIX. fig. 8.)

Carea albipicta, Hmpsn. A. M. N. H. (7) xvi. p. 599 (1905).

♀. Head and thorax grey-white mixed with purplish red; palpi rufous; pectus and legs whitish, tarsi rufous ringed with white; abdomen white. Fore wing white, the costal, inner, and terminal areas suffused with purple-grey and irrorated with rufous; some rufous suffusion at base of costa; the medial and postmedial areas except towards costa and inner margin striated with bright ferruginous; an ill-defined waved antemedial line, diffused towards costa and somewhat inwardly oblique; a ferruginous discoidal bar; a somewhat oblique sinuous white postmedial band, incurved in submedian interspace; a dark brown subterminal line excurved at vein 7 and middle; a dark brown terminal line expanding into small spots in the interspaces; cilia ferruginous. Hind wing semi-hyaline white. Underside of fore wing white with the costal area suffused with grey and red-brown.

Hind wing with veins 3, 4 stalked.

Hab. Fiji, 1 ♀ type. *Exp.* 32 millim.

B. Hind tibiæ of male with thick fringe of long hair on outer side except at base; the tibiæ, spurs, and tarsi normal.

*6963. Carea viridipennis.

Carea viridipennis, Druce, A. M. N. H. (8) viii. p. 150 (1911).

♂. Head and tegulæ sap-green, the thorax sap-green mixed with whitish; palpi rufous; pectus and legs pale rufous, the mid tibiæ brown above towards base; abdomen pale brown, the basal crest white, the ventral surface white tinged with rufous. Fore

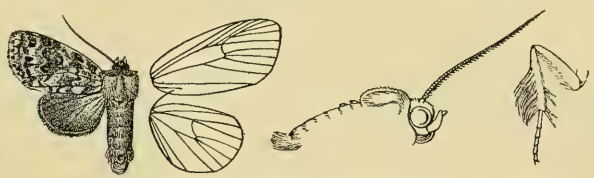


Fig. 213.—*Carea viridipennis*, ♂. ½.

wing whitish variegated with sap-green; a brown patch at base of inner margin; a waved whitish subbasal line from costa to submedian fold; a somewhat dentate dark antemedial line expanding into a patch towards costa; a black point in end of cell and slight

discoidal bar; a dark brown postmedial line defined on outer side by whitish, excurved beyond the angles of cell and incurved at discal fold, angled outwards in submedian fold; a somewhat maculate dark brown subterminal line, excurved below vein 7; cilia chequered reddish brown and whitish. Hind wing blood-red; the inner area tinged with brown; cilia brownish towards apex. Underside of both wings deep blood-red; fore wing with brown postmedial bar from costa and some brown on costa towards apex; hind wing with the inner area whitish.

Hab. Borneo, Labuan (*Pryer*), type † ♂ in Coll. Druce. *Exp.* 34 millim.

C. (*Didigua.*) Hind tibiæ of male normal.
  a. Fore wing with green markings.
    a^1. Hind wing purplish red, the inner area suffused with brown.
      a^2. Fore wing with oblique green band from middle of costa to tornus ..... *viridifascia.*
      b^2. Fore wing with green fascia from costa at antemedial line to postmedial line at vein 2, and some green below postmedial part of costa and near subterminal line ..... *effusa.*
    b^1. Hind wing whitish suffused with brown ..... *viridipicta.*
  b. Fore wing without green markings.
    a^1. Fore wing with the ground-colour grey.
      a^2. Fore wing with the medial area not chocolate-brown *seticornis.*
      b^2. Fore wing with the medial area chocolate-brown ... *mesocausta.*
    b^1. Fore wing with the ground-colour red-brown.
      a^2. Fore wing with series of small white spots at base of cilia and white tips towards tornus..... *vexilla.*
      b^2. Fore wing without white markings on the cilia..... *nexilla.*

6964. **Carea viridifascia.** (Plate CLXXXIX. fig. 9.)

Erizada viridifascia, Swinh. A. M. N. H. (7) ix. p. 172 (1902).

♀. Head and tegulæ yellow-green, the lower part of frons whitish; antennæ brown; tips of tegulæ and thorax purple-grey with a few brown scales, the metathorax with green patch; pectus grey; legs purple-grey irrorated with brown, the tarsi brown with pale rings; abdomen grey-brown, the crests green, the ventral surface whitish irrorated with brown. Fore wing purple-grey irrorated with a few black scales; a yellow-green patch on base of costal area with the slight waved deeper green subbasal line on it from costa to submedian fold; an oblique green band with whitish middle from middle of costa to tornus, its edges waved to the submedian fold, its inner edge with waved blackish line just before it from cell to inner margin, its outer edge slightly defined by blackish; three black points with whitish between them on apical part of costa; an oblique green subterminal bar from costa to a minute black streak on vein 7, then a series of slight whitish spots with faint dentate green marks before them on veins 6 to 2; a terminal series of black points and a striga above tornus. Hind wing pale purplish red, the costal area towards apex and the interspaces of terminal area suffused with grey-brown, the inner area

brown; the underside whitish, the area beyond the cell suffused with red, the costal area irrorated with brown.

Hab. Straits Settlements, Perak, Goping (*Künstler*), 1 ♀ type. *Exp.* 30 millim.

6965. Carea effusa. (Plate CLXXXIX. fig. 10.)

B'enina effusa, Swinh. A. M. N. H. (7) vii. p. 490 (1901).

♀. Head and thorax pale pinkish brown, the vertex of head with some green scales; abdomen fuscous brown, the extremity and ventral surface pale pinkish brown. Fore wing pale flesh-colour irrorated with a few black scales, the inner area tinged with pinkish except towards base; some yellow-green on basal costal area; a fuscous antemedial mark on costa with an oblique green fascia from it to median nervure and thence along vein 2 to the subterminal line; a small black discoidal spot with fuscous mark above it on costa; a slight fuscous postmedial mark on costa and indistinct line from vein 6, angled inwards to lower angle of cell, then excurved and slightly waved; a green patch below postmedial part of costa; a subterminal series of slight blackish spots with whitish points on their outer edges defined on each side by some green suffusion, excurved below vein 7 and at middle; a terminal series of blackish points. Hind wing purplish red, the inner area whitish suffused with brown; the underside pale flesh-colour, the costal area irrorated with black, slight blackish subterminal spots from costa to vein 5.

Hab. Borneo, Lewas (*Everett*), 1 ♀ type. *Exp.* 28 millim.

6966. Carea viridipicta. (Plate CLXXXIX. fig. 11.)

Churia viridipicta, Hmpsn. Moths Ind. iv. p. 530 (1896).

Head and thorax brownish grey, the vertex of head, tegulæ except at tips and front of thorax suffused with sap-green; pectus whitish; abdomen grey tinged with brown, the ventral surface white irrorated with brown. Fore wing grey tinged with brown and sparsely irrorated with black; a yellow-green fascia on basal part of costa; antemedial line green, waved, somewhat oblique; the medial inner area suffused with green; a black discoidal striga; postmedial line pale slightly defined on each side by black from discal fold to inner margin and with yellow-green suffusion before and beyond it from costa to vein 6 and between veins 5 and 3, excurved below costa and incurved at discal fold, then sinuous; a patch of green suffusion on costal area towards apex connected with the green suffusion beyond the postmedial line; a subterminal series of black points slightly excurved below vein 7 and at middle; a terminal series of black points; cilia whitish with some fuscous on termen and cilia at tornus. Hind wing whitish suffused with brown, the cilia with white line at base; the underside white, the

costal half sparsely irrorated with black, a blackish discoidal lunule and faint subterminal spots from costa to vein 5.

Hind wing with veins 3, 4 strongly stalked.

Hab. Assam, Khásis, 1 ♂, 1 ♀ type. *Exp.* ♂ 30, ♀ 32 millim.

6967. Carea seticornis.

Nonagria seticornis, Wlk. Journ. Linn. Soc., Zool. vi. p. 180 (1862); Swinh. Cat. Het. Mus. Oxon. ii. p. 99, pl. iii. f. 21.
Didigua purpureoscripta, Wlk. Journ. Linn. Soc., Zool. vi. p. 181 (1862).
Churia lilacina, Hamps. Moths Ind. ii. p. 418 (1894).

Head and thorax grey tinged with brown; pectus white; abdomen grey tinged with brown, the anal tuft and ventral surface white. Fore wing grey tinged with brown and sparsely irrorated with black scales; a black point in cell near base; antemedial line red-brown, waved, almost obsolete below submedian fold; a slight dark discoidal striga; postmedial line red-brown, minutely waved, excurved below costa and at middle and incurved at discal fold and below vein 3; subterminal line represented by a series of small black lunules, excurved below vein 7 and at middle and incurved at discal fold and below vein 3; a terminal series of minute black

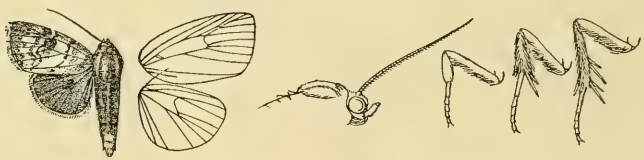


Fig. 214.—*Carea seticornis*, ♂. ½.

spots; cilia whitish tinged with brown. Hind wing fuscous brown, the cilia whitish tinged with brown; the underside white, the costal area and terminal area to vein 3 slightly tinged and irrorated with red-brown, slight dark subterminal spots from costa to vein 4 sometimes present.

Ab. 1. *purpureoscripta*. Fore wing with black point in middle of cell and slight discoidal lunule with a round rufous spot beyond it.

Hab. Sikhim (*Möller*), type † ♀ *lilacina* in Coll. Rothschild; Singapore (*Ridley*), 2 ♂, 2 ♀; Borneo, 1 ♀, Sarawak (*Wallace*), 1 ♀, Kuching (*Shelford*), 1 ♂, 2 ♀, Sadong (*Shelford*), 1 ♂, Padzu (*Shelford*), 1 ♀. *Exp.* 28–32 millim. Type and type † *purpureoscripta* in Mus. Oxon.

6968. Carea mesocausta. (Plate CLXXXIX. fig. 12.)

Carea mesocausta, Hmpsn. A. M. N. H. (7) xvi. p. 598 (1905).

♂. Head, thorax, and abdomen grey; pectus and base of legs white; tarsi red-brown ringed with white; abdomen with a little fiery red on terminal segment, the anal tuft white at tip, the ventral surface whitish tinged with red towards extremity. Fore

wing grey sparsely irrorated with black, the medial area strongly suffused with red-brown with some large black-pencilled scales below the cell; an oblique antemedial line, excurved in cell and incurved in submedian interspace; an oblique black discoidal bar defined by grey on outer side; an oblique postmedial line ending at tornus, excurved below costa and at middle; a subterminal punctiform fuscous line ending on termen above tornus, angled outwards at vein 7 and excurved at middle; a terminal series of black points; cilia white intersected by pale brownish. Hind wing fuscous brown; the underside whitish suffused with fuscous.

Hab. Borneo, Sandakan (*Pryer*), 1 ♂ type. *Exp.* 28 millim.

6969. **Carea vexilla.** (Plate CLXXXIX. fig. 13.)

Dinumma vexilla, Swinh. A. M. N. H. (6) xii. p. 263 (1893).

Head and thorax red-brown, the vertex of head and tegulæ except at tips pale grey mixed with fuscous; pectus white; legs white mixed with rufous, the tarsi ringed with white; abdomen white dorsally suffused with red-brown. Fore wing red-brown; subbasal line indistinct, dark, rather diffused, with a pale grey patch irrorated with fuscous before it, from costa to submedian fold; antemedial line dark, rather diffused, somewhat oblique and sinuous, with a white point at costa; a medial pale grey band with waved edges from costa to above vein 1, irrorated with brown scales and with the slight dark discoidal lunule on it; postmedial line rather diffused, dark, with a white point at costa and some whitish scales on it, angled outwards below costa and excurved at middle, incurved at discal fold and below vein 3, subterminal line rather diffused, dark, excurved below vein 7 and at middle and incurved at discal fold and below vein 3, a whitish bar on it at costa and three white spots on its outer edge above inner margin, a series of small dark spots beyond it defined on outer side by white except towards costa and connected with the black terminal line by dark streaks in the interspaces; cilia with series of small white spots at base and white tips towards tornus. Hind wing fuscous brown, the cilia red except towards tornus; the underside white, the costal half irrorated with red and the terminal area suffused with red from apex to vein 3.

Ab. 1. Fore wing without the grey medial band.

Hab. Singapore (*Ridley*), 15 ♂, 5 ♀ type; Borneo, Limbang, 1 ♂. *Exp.* 30-32 millim.

6970. **Carea nexilla**, n. sp. (Plate CLXXXIX. fig. 14.)

Dinumma vexilla, var., Swinh. A. M. N. H. (6) xii. p. 263 (1893).

♀. Head and thorax bright red-brown; antennæ with the basal joint white on outer side; pectus brownish white; abdomen grey-brown, the ventral surface rufous. Fore wing bright red-brown slightly irrorated with blackish; antemedial line dark, oblique and

sinuous from costa to middle of inner margin; a black discoidal point; postmedial line blackish, oblique to vein 4, excurved below costa and at middle and incurved at discal fold and below vein 3; subterminal line dark, rather diffused, excurved below vein 7 and at middle and incurved at discal fold; cilia with a fine whitish line at base. Hind wing fuscous brown, the apical area tinged with red; the underside pale red, the inner area whitish, the costal area and terminal area to vein 2 irrorated with red-brown.

Hab. Singapore, 1 ♀ type; Borneo, Sandakan (*Pryer*), 2 ♀. *Exp.* 32 millim.

Genus **PARACAREA.**

	Type.
Paracarea, Beth.-Baker, Nov. Zool. xiii. p. 245 (1906)	*rubiginea.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to middle of frons and slenderly scaled, the 3rd very long, oblique, and dilated at extremity; frons smooth; eyes large, round; antennæ of female ciliated; thorax clothed with hair only and without crests; tibiæ fringed with long hair; abdomen with some rough hair at base but without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 stalked; 5 from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

*6971. Paracarea rubiginea.

Paracarea rubiginea, Beth.-Baker, Nov. Zool. xiii. p. 246 (1906).

♀. Head and thorax bright chestnut-red; palpi white in front; pectus white except in front; legs whitish suffused with red, the tarsi irrorated with white; abdomen whitish suffused with red, the ventral surface fiery red. Fore wing bright chestnut-red with a slight silvery gloss except before the postmedial line towards costa and with slight dark irroration, the base of inner margin white; antemedial line indistinct, rufous, very oblique, arising from below costa; black points in end of cell and on discocellulars; postmedial

Fig. 215.—*Paracarea rubiginea*, ♀. ½.

line indistinct, rufous, oblique from costa to vein 7, excurved to vein 4, then incurved and bent outwards to tornus; a faint dark subterminal line, excurved from below vein 7. Hind wing white, the terminal area broadly tinged with pink except towards tornus; cilia tinged with pink from apex to vein 2. Underside of fore

wing pale red, the inner area white, the costal area and terminal area to vein 2 irrorated with brown; hind wing with the costal half pale red irrorated with brown, the inner half white.

Hab. Br. N. Guinea, Dinawa (*Pratt*), type † ♀ in Coll. Bethune-Baker, Mt. Kebea. *Exp.* 42 millim.

Genus **VIZAGA**.

	Type.
Vizaga, Swinh. A. M. N. H. (7) vii. p. 491 (1901)	*cyanea.*
Parelydna, Beth.-Baker, Nov. Zool. xiii. p. 241 (1906)	*mirabilis.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and rather slenderly scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male minutely ciliated; thorax clothed with scales and hair mixed and without crests; tibiæ slightly fringed with hair; abdomen with dorsal crests on two basal segments. Fore wing with the apex rounded, the termen evenly curved and not crenulate; vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle; 9 from 10 anastomosing with 8 to form a rather long areole; 11 from cell; male with two depressed grooves in end of cell which is rounded at extremity. Hind wing with veins 3, 4 stalked; 5 fully developed from above angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the terminal area not suffused with red and with white streaks in the interspaces ..... *cyanea.*
B. Fore wing with the terminal area suffused with red and without white streaks in the interspaces ..... *mirabilis.*

6972. Vizaga cyanea.

Ophiusa cyanea, Snell. Tijd. v. Ent. xxiv. p. 129, pl. 14. f. 2 (1881).

Head white; palpi blue-black with some white scales, the 1st joint white above and below, the extremity of 2nd joint white; antennæ black; thorax fulvous yellow; pectus and legs white, the tibiæ and tarsi blue ringed with white; abdomen cobalt-blue (fading to pale blood-red) with white segmental lines, the anal tuft ochreous. Fore wing fulvous yellow to beyond middle with a

Fig. 216.—*Vizaga cyanea*, ♂. ½.

greenish tinge on inner area and towards its outer edge which is straight and erect, followed by a white band; the terminal area cobalt-blue with white streaks in the interspaces; cilia white with a few blue scales towards tornus. Hind wing cobalt-blue; a slight white discoidal lunule; cilia white mixed with blue. Underside of fore wing blue, the inner area white, the white postmedial band

obsolescent except towards costa and inner margin, the streaks on terminal area slight; hind wing with the veins streaked with white, a diffused white fascia through the cell to a diffused dentate white postmedial band extending from costa to below submedian fold.

Hab. Philippines, Luzon; Sambawa, 1 ♂, 1 ♀. *Exp.* ♂ 30, ♀ 32 millim.

6973. **Vizaga mirabilis.** (Plate CLXXXIX. fig. 15.)

Parelydna mirabilis, Beth.-Baker, Nov. Zool. xiii. p. 242 (1906).

Head white with some fuscous on vertex; palpi bluish fuscous and white; antennæ fuscous; thorax fulvous yellow; pectus and legs white, the fore femora bluish fuscous above, the tibiæ and tarsi bluish fuscous ringed with white; mid and hind legs with the tibiæ irrorated with blue, the tarsi ringed with blue; abdomen cobalt-blue (fading to pale red), the anal tuft and ventral surface white irrorated with blue. Fore wing fulvous yellow to beyond middle with a greenish tinge except on costal area, the inner margin blue; a rather narrow and somewhat oblique white band from costa beyond middle to inner margin near tornus, its outer edge slightly produced at costa, defined on outer side by olive-green, the rest of terminal area cupreous red, blue below submedian fold; cilia white mixed with blue, wholly blue towards tornus. Hind wing cobalt-blue; cilia white mixed with blue. Underside of fore wing blue, the inner area white, the costa fuscous with some white scales towards base and beyond middle and on apical part of termen; hind wing with white irroration on base of costal area, in cell and submedian fold, an apical white patch narrowing to a point at vein 2 and with dentate inner edge.

Hab. Br. N. Guinea, Ekeikei (*Pratt*), 5 ♂, 5 ♀, Mt. Kebea (*Pratt*), 2 ♀. *Exp.* ♂ 30, ♀ 34–38 millim.

Genus **MACEDA.**

	Type.
Maceda, Wlk. xiii. 1140 (1857)	*mansueta.*
Calduba, Wlk. xv. 1815 (1858)	*mansueta.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to middle of frons and smoothly scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male strongly ciliated; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen with dorsal crests on two basal segments. Fore wing short and broad, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a rather long areole; 11 from cell; male with scaleless groove in upper part of extremity of cell on upperside, on underside filling the whole end of cell. Hind wing with veins 3, 4 stalked; 5 fully developed from just above angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

6974. Maceda mansueta.

Maceda mansueta, Wlk. xiii. 1141 (1857); Moore, Lep. Ceyl. iii. p. 82, pl. 154. ff. 4, 5; Hmpsn. Moths Ind. ii. p. 397.
Calduba obtenta, Wlk. xv. 1815 (1858).
Maceda discalis, Wlk. Journ. Linn. Soc., Zool. vii. p. 176 (1864).
Maceda rufescens, Beth.-Baker, Nov. Zool. xiii. p. 232 (1906).

Head and thorax red-brown with a slight greyish tinge; palpi whitish at base; pectus and legs white, the tibiæ and tarsi brown ringed with white; abdomen fuscous brown with slight white segmental lines, the ventral surface and anal tuft of male white. Fore wing red-brown with a faint purplish tinge; antemedial line brown, rather indistinct, oblique; a black discoidal point, in the male forming a slight streak beyond the fovea; postmedial line brown slightly defined on outer side by grey, oblique from costa to vein 6, then dentate, bent inwards below vein 3 and outwards below submedian fold; subterminal line represented by a series of slight somewhat dentate blackish spots, somewhat excurved below vein 7 and ending on termen above tornus; a slight fuscous terminal shade from below apex to vein 2; a fine whitish line at

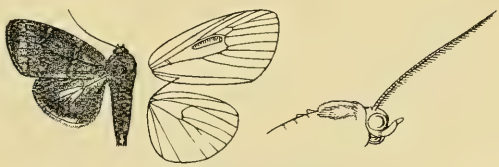


Fig. 217.—*Maceda mansueta*, ♂. ½.

base of cilia. Hind wing grey-brown, the terminal area blackish from vein 6 to submedian fold, a white patch beyond lower angle of cell with the veins on it brown; the termen and cilia white between veins 3 and 1; the underside white, the terminal area fuscous brown narrowing to tornus and with the termen and cilia white between veins 3 and 1, sometimes with a slight black discoidal striga.

Ab. 1. *discalis*. Fore wing with a pale patch on discal area defined by purplish fuscous beyond the antemedial and before the postmedial line and above submedian fold.

Ab. 2. Fore wing with the medial area purplish fuscous to the submedian fold.

Ab. 3. *rufescens*. Fore wing with the whole medial area purplish fuscous and also the postmedial area below discal fold.

Ab. 4. Fore wing with the terminal area also purplish fuscous except towards apex.

Ab. 5. Head, thorax, and fore wing greyer brown.

Hab. Ceylon (*Templeton*), 5 ♂, 4 ♀ type *obtenta*, Kandy (*Meade-Waldo*), 1 ♂, 1 ♀; Andamans, 1 ♂, 1 ♀; Nicobars (*Rogers*), 2 ♂; Straits Settlements, Perak, Larut Hills (*Flower*), 1 ♂; Borneo, Sarawak (*Wallace*), 1 ♂, 2 ♀ type; Pulo Laut (*Doherty*), 1 ♂; Celebes, Makian; Br. N. Guinea, Dinawa (*Pratt*), 2 ♂, 2 ♀, Ekeikei (*Pratt*), 4 ♂, 4 ♀; Queensland, Cape York (*Higgins*), 1 ♀, Brisbane (*Turner*), 1 ♂, 1 ♀. *Exp.* 26–38 millim.

Genus **MAURILIA.**

Maurilia, Möschl. Verh. zool.-bot. Ges. Wien, xxxiii. p. 298 (1884) ..... Type. *arcuata.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about vertex of head and rather slenderly scaled, the 3rd long and somewhat dilated at extremity; frons smooth; eyes large, round; antennæ of male minutely ciliated; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen with dorsal crests on two basal segments. Fore wing with the apex rectangular, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with veins 3, 4 more or less strongly stalked; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Fore wing of male with an elongate curved-over valve of scales on underside above base of subcostal nervure with a similar valve below it on and below subcostal nervure with a hook on its lower edge forming the retinaculum.

6975. Maurilia saturata.

Areola saturata, Wlk. xxxiii. 774 (1865); Hmpsn. Moths Ind. ii. p. 135.
Paracrama olivacea, Hmpsn. Ill. Het. B.M. ix. p. 87, pl. 157. f. 17 (1893).

♂. Head flesh-pink, the palpi with some black above and as a ring near extremity; thorax olive-green suffused with silvery white; pectus and legs white, the fore femora brown above, the tibiæ and tarsi tinged with pink; abdomen fuscous brown, the extremity red, the ventral surface white towards base, red towards extremity. Fore wing blue-green suffused with silvery white; the costal edge pale red; antemedial line fine, white, sinuous, incurved below median nervure, some pale red before it on costal area and a broad green band beyond it not suffused with white, its outer edge excurved at median nervure and vein 1; postmedial line fine, white, excurved below costa, at middle and towards inner margin, with green patches before it on costal area, at middle and on inner area, a white point beyond it on costa; a green patch on costal area before apex with two minute black streaks on its outer edge; a terminal series of black points slightly defined on inner side by white; cilia flesh-pink at tips. Hind wing fuscous brown,

the terminal area and cilia red from apex to vein 2 with some black points on termen. Underside of fore wing fuscous brown,

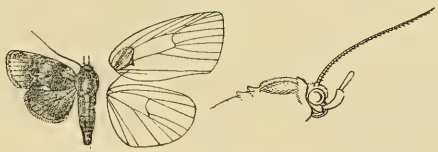


Fig. 218.—*Maurilia saturata*, ♂. ½.

the costal and terminal areas red, the inner area white; hind wing white, the costal and terminal areas suffused with red.

♀. Thorax and fore wing more olive-green, the latter without red on costal area before the antemedial line.

Hab. Ceylon (*Green*, *Mackwood*), 1 ♂, 1 ♀ type *olivacea*, Maskeliya (*Mackwood*), 1 ♂, Gampola (*Mackwood*), 1 ♀. *Exp.* ♂ 22, ♀ 28 millim.

Sect. II. Retinaculum of male normal.

A. Fore wing with the ante- and postmedial lines defined by white ..... *albirivula.*
B. Fore wing with the ante- and postmedial lines not defined by white.
a. Hind wing fuscous brown, not semihyaline..... *heterochroa.*
b. Hind wing more or less semihyaline.
a^1. Fore wing with the double postmedial line ending on inner margin close to tornus.
a^2. Hind wing more or less suffused with brown.
a^3. Hind wing nearly uniformly fuscous brown, the interspaces of basal area faintly semihyaline..... *phæa.*
b^3. Hind wing with the interspaces semihyaline except on terminal area ..... *iconica.*
b^2. Hind wing semihyaline white, the termen tinged with ochreous or rufous ..... *arcuata.*
b^1. Fore wing with the double postmedial line ending on inner margin well before tornus ..... *iocephala.*

6976. **Maurilia albirivula.** (Plate CLXXXIX. fig. 16.)

Maurilia albirivula, Hmpsn. A. M. N. H. (7) xvi. p. 599 (1905).

♀. Head and thorax pale rufous; 2nd joint of palpi and tegulæ slightly tipped with white; pectus and legs whitish; abdomen fuscous brown, the ventral surface whitish. Fore wing pale rufous, the medial area dark reddish brown, extending below vein 6 to just beyond the postmedial line and below vein 4 to termen; a small patch of brown suffusion in cell before the antemedial line, which is white defined by brown on outer side, oblique, waved, more strongly incurved in submedian interspace; postmedial line white defined on each side by brown, slightly waved, oblique from costa

to vein 4; some whitish points on costa towards apex; a subterminal series of small obscure fuscous spots except towards costa, excurved below vein 4 to near termen; some brown suffusion on terminal area below apex with slightly darker streaks on the veins. Hind wing fuscous brown, the cilia ochreous white. Underside of fore wing fuscous brown, the inner area and hind wing whitish.

Ab. 1. Head, thorax, and abdominal crests sap-green; fore wing with the basal and apical areas sap-green, the medial area and inner half of terminal area pale rufous.

Hab. Nigeria, Old Calabar (*Crompton*), 1 ♀ type, Ilesha (*Humphrey*), 1 ♀. *Exp.* 30 millim.

6977. **Maurilia heterochroa.** (Plate CLXXXIX. fig. 17.)

Maurilia heterochroa, Hmpsn. A. M. N. H. (7) xvi. p. 600 (1905).

Head, thorax, and fore wing varying from bright rufous to greyish rufous or greyish fuscous; palpi irrorated with white; frons with white patch; pectus and base of legs white; tibiæ and tarsi white mixed with rufous; abdomen fuscous, the anal tuft rufous, the ventral surface white tinged with rufous towards extremity. Fore wing with double waved, very oblique antemedial line; black points in end of cell and on discocellulars; a double, somewhat waved postmedial line, oblique from costa to vein 6, slightly angled inwards in discal fold, then excurved, and incurved in submedian interspace; a slight somewhat sinuous fuscous shade from apex to antemedial line below the cell; a subterminal punctiform black line slightly excurved at vein 7 and incurved at discal fold; the termen rather darker from just below apex to vein 2. Hind wing fuscous brown to deep fuscous; cilia greyish at tips. Underside of fore wing fuscous black, the costal and terminal areas red with some whitish on costa towards apex, inner area whitish; hind wing red, the basal and inner areas grey-white.

Ab. 1. Fore wing with the inner area from near base to subterminal line and extending to upper angle of cell suffused with dark red-brown.

Ab. 2. Fore wing with this area deep ferruginous red with a large darker ferruginous somewhat triangular patch on it beyond the cell.

Ab. 3. Fore wing greyish fuscous.

Ab. 4. Fore wing greyish fuscous with a similar dark fuscous patch on inner area.

Ab. 5. Fore wing greyish fuscous with diffused black wedge-shaped patch beyond the cell.

Hab. S. Nigeria, Lagos (*Dudgeon*), 1 ♂, Old Calabar (*Rutherford*, *Crompton*), 4 ♂, 2 ♀ type, Sapele (*Sampson*), 2 ♂. *Exp.* 36–40 millim.

6978. **Maurilia phæa.** (Plate CLXXXIX. fig. 18.)

Maurilia phæa, Hmpsn. A. M. N. H. (7) xvi. p. 600 (1905).

Olive-fuscous; head, thorax, and fore wing sometimes tinged with dull rufous; pectus and base of legs and abdomen whitish. Fore wing with two dark, oblique, waved ante- and postmedial lines, the latter somewhat excurved below costa and at middle and ending near tornus; a slight oblique dark discoidal bar; a subterminal series of small fuscous spots, somewhat oblique from costa to vein 6, slightly incurved at discal fold and excurved at middle. Hind wing and underside uniform fuscous brown, the interspaces of basal area faintly semihyaline.

Hab. Sierra Leone (*Bartlett*), 1 ♀; S. Nigeria, Old Calabar (*Miss Kingsley*, *Sampson*, *Crompton*), 4 ♂ type, Olokemeji (*Dudgeon*), 1 ♂, Ilesha (*Humphrey*), 1 ♀. *Exp.* 30–40 millim.

6979. **Maurilia iconica.**

Anomis iconica, Wlk. xiii. 992 (1857); Hmpsn. Ill. Het. B.M. ix. p. 132, pl. 167. f. 8; id. Moths Ind. ii. p. 417.
Briarda cervina, Wlk. xxxv. 1968 (1866).
Anomis instabilis, Butl. Ill. Het. B.M. vii. p. 72. pl. 131. f. 3 (1889).

Head and thorax rufous; palpi at base, pectus and legs white, the fore femora above and the tibiæ suffused with brown, the tarsi brown ringed with white; abdomen grey-brown, the ventral surface white. Fore wing rufous irrorated with brown; two rather diffused oblique sinuous fuscous antemedial lines; a slight discoidal lunule; two rather diffused fuscous, oblique, postmedial lines, excurved below vein 7 and at middle and incurved at discal fold and submedian interspace; subterminal line fuscous with small black spots on it on costal half, excurved below vein 7 and at middle, incurved at discal fold and bent outwards to tornus. Hind wing semihyaline whitish suffused with brown, especially on inner and terminal areas; the underside whitish, the costal area and terminal area to vein 3 tinged and irrorated with brown.

Ab. 1. *instabilis*. Head, thorax, and fore wing greyer brown, the last with the costal half suffused with rufous to the postmedial line, a prominent black discoidal lunule.

Ab. 2 *cervina*. Head, thorax, and fore wing grey-brown without rufous suffusion.

Ab. 3. Head, thorax, and fore wing dark glossy reddish brown; hind wing almost uniform fuscous brown.

Ab. 4. Similar but fore wing with the inner half suffused with blackish from the outer antemedial to the outer postmedial line.

Hab. C. China, Kiukiang (*Pratt*), 1 ♀; Punjab, Simla (*Harford*), 1 ♀, Dharmsàla (*Hocking*), 7 ♂ type *instabilis*, Jubbulpur, 2 ♀; Nepaul (*Hardwick*), 1 ♀ type *cervina*; Sikhim (*Möller*), 7 ♂, 3 ♀; Assam, Khásis; Bombay, Ratnagiri (*Jayaker*), 1 ♀, Khandála; Madras, Horsleykondah (*Campbell*), 1 ♂, Nilgiris (*Hampson*), 3 ♂; Travancore, Pirmád (*Mrs. Imray*), 2 ♀; Ceylon (*Templeton*),

1 ♀ type, Maskeliya (*de Mowbray*), 1 ♂, 1 ♀; Burma, Rangoon, N. Khyen Hills (*Watson*), 4 ♂, 3 ♀; Singapore (*Ridley*), 2 ♂, 1 ♀; Br. N. Guinea, Ekeikei (*Pratt*), 4 ♂; Queensland, Townsville (*Dodd*), 1 ♂. *Exp.* 30–40 millim.

6980. Maurilia arcuata.

Xanthodes arcuata, Wlk. xii. 779 (1857).
Maurilia lubina, Moschl. Verh. z.-b. Wien. xxxiii. p. 298, pl. xvi. f. 13 (1884).

Head and thorax pale reddish ochreous; palpi at base, pectus and legs white, the fore and mid tibiæ pale rufous, the tarsi rufous ringed with white; abdomen pale grey-brown, the ventral surface white. Fore wing reddish ochreous; two indistinct, oblique, sinuous brownish antemedial lines; a slight discoidal lunule; two indistinct oblique postmedial lines, excurved below vein 7 and at middle and incurved at discal fold and below vein 3; subterminal line represented by a series of small black spots on costal half, then by a brown line ending at tornus, slightly excurved below vein 7 and at middle. Hind wing semihyaline white, the veins, inner and terminal areas tinged with reddish ochreous.

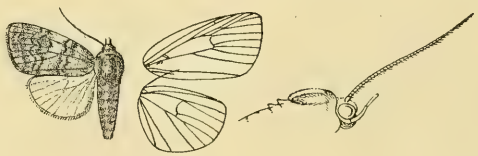


Fig. 219.—*Maurilia arcuata*, ♂. ½.

Ab. 1. Head, thorax, and fore wing pale ochreous.

Ab. 2. Similar but fore wing with the lines and discoidal lunule distinct, a subbasal line present, the subterminal line entire, a patch of brown on termen at discal fold.

Ab. 3. Head, thorax, and fore wing bright rufous irrorated with fuscous, the last with the lines and discoidal lunule distinct.

Ab. 4. Similar but fore wing with some fuscous suffusion on inner area towards tornus and on terminal area at discal fold.

Ab. 5. Similar but fore wing with the inner area suffused with fuscous from the inner antemedial to the outer postmedial line.

Hab. S. Nigeria, Lagos, Olokemeji (*Dudgeon*), 3 ♂; N. Nigeria, Minna (*Macfie*), 1 ♀; Congo (*Richardson*), 1 ♀ type; Abyssinia, Atbara (*Gerrard*), 1 ♀; Br. E. Africa, Naitolia (*Betton*), 1 ♂, Eb Urru (*Betton*), 1 ♀, Kikuyu (*Crawshay*), 1 ♀, Machakos (*Crawshay*), 1 ♀; Uganda, Ketoma (*Doggett*), 1 ♂; Br. C. Africa, Lr. Shiré R. (*Neave*), 1 ♂; Mashonaland, Salisbury (*Marshall*), 1 ♀; Transvaal, White R. (*Cooke*), 1 ♀; Natal, Malvern (*Millar*), 1 ♀, Durban (*Barker*, *Marley*, *Leigh*), 2 ♂, 4 ♀; Cape Colony, Grahamstown, 1 ♂, 1 ♀, Transkei (*Miss F. Barrett*), 1 ♂. *Exp.* 26–38 millim.

6981. **Maurilia iocephala.** (Plate CLXXXIX. fig. 19.)

Maurilia iocephala, Turner, P. Linn. Soc. N. S. W. xxvii, p. 94 (1902).

Head and thorax red-brown; tarsi ringed with white; pectus and abdomen white, the latter dorsally tinged with fuscous. Fore wing red-brown slightly irrorated with fuscous, the terminal area suffused with grey; an indistinct waved fuscous subbasal line; two oblique waved antemedial lines; an obscure discoidal bar; a waved postmedial line bent outwards round end of cell, with traces of a line beyond it; a sinuous subterminal series of points and a terminal series. Hind wing semihyaline white, the veins brownish, the termen suffused with fuscous.

Hab. Queensland, Townsville (*Dodd*), 2 ♂. *Exp.* 22–26 millim. Type † ♀ in Coll. Turner.

Genus **CAMPTOZADA.** nov.

Type, *C. mirabilis.*

Proboscis fully developed; palpi typically obliquely upturned, the 2nd joint reaching to vertex of head, fringed with hair behind and in front at extremity, the 3rd moderate; frons smooth; eyes large, round; antennæ of male almost simple; thorax clothed with hair and scales mixed and without crests, the tegulæ produced to a dorsal ridge; tibiæ slightly fringed with hair; abdomen with dorsal crest on base only. Fore wing with the apex produced and acute, the termen excised below apex and typically excurved at middle; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8 and 10 stalked, 9 absent, 7 from beyond 10; 11 from cell. Hind wing with veins 3, 4 coincident; 5 fully developed from angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Palpi oblique, the 2nd joint fringed with hair behind and in front at extremity; fore wing with the termen not hooked at vein 3.

6982. **Camptozada mirabilis.**

Tinosoma mirabile, Swinh. Trans. Ent. Soc. 1890, p. 237; Hmpsn. Moths Ind. ii. p. 426.

Head and thorax whitish mixed with red-brown; pectus whitish; tarsi rufous ringed with whitish; abdomen rufous, the ventral

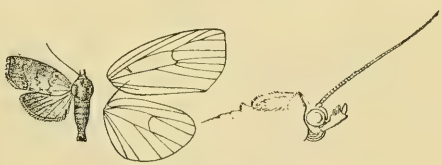


Fig. 220.—*Camptozada mirabilis*, ♂. ½.

surface whitish. Fore wing rufous mixed with some whitish especially on inner area from base to postmedial line, and slightly

irrorated with blackish scales; a rather oblique waved whitish antemedial line; slight blackish points in end of cell and on discocellulars; traces of a brownish medial line, excurved round end of cell, then oblique and minutely waved; an indistinct slightly waved whitish postmedial line, excurved below costa and incurved at submedian fold, often with some black suffusion beyond it on inner area; a subterminal series of black points defined on outer side by whitish; cilia chequered with whitish at tips. Hind wing red, the apical and inner areas suffused with brown; cilia whitish at tips. Underside of fore wing red, the inner area whitish; hind wing whitish irrorated with red, a red-brown discoidal spot and indistinct subterminal series of red points.

Hab. Bombay, Kanara, Karwar (*Bell*, *Davidson*), 2 ♂, 1 ♀; Ceylon, Kegalla (*Mackwood*), 1 ♀; Burma, Rangoon (*Scott*), 1 ♀ type; Bali (*Doherty*), 1 ♀; Sumbawa (*Doherty*), 1 ♀. *Exp.* 20 millim.

Sect. II. Palpi with the 2nd joint upturned and smoothly scaled; fore wing with the termen hooked at vein 3.

6983. Camptozada bilinea.

Cletthara bilinea, Swinh. Trans. Ent. Soc. 1890, p. 237; Hmpsn. Moths Ind. ii. p. 426.

Head and thorax brown tinged with grey; tegulæ dark olive-green, whitish at base; tarsi blackish ringed with white: abdomen fuscous brown, the extremity whitish, the ventral surface red. Fore wing purplish grey tinged with brown and irrorated with a few black scales, the basal and medial costal areas and the terminal area from apex to vein 3 olive-green; antemedial line whitish defined on outer side by blackish, slightly excurved below costa

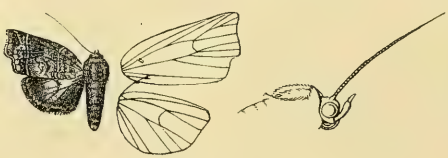


Fig. 221.—*Camptozada bilinea*, ♂. ½.

and incurved in submedian interspace; an obscure blackish discoidal spot; postmedial line white slightly defined on outer side by blackish, slightly incurved below costa, then almost straight and somewhat outwardly oblique; a subterminal series of black points slightly incurved below costa; a dark line at base of cilia. Hind wing orange-red, the apical and inner areas suffused with brown; an indistinct dark discoidal lunule and subterminal series of small spots; cilia pale chequered with brown at tips from apex to vein 2. Underside of fore wing orange-red, the costa brown, the inner area

whitish; hind wing whitish, the costal half suffused with red and irrorated with brown, a slight dark discoidal lunule, indistinct sinuous postmedial line from costa to vein 2, and subterminal series of black points.

Hab. Assam, Khásis, 1 ♂; Burma, Rangoon (*Scott*), 1 ♂ type, E. Pegu, Tenasserim; Bali (*Doherty*), 4 ♂, 1 ♀. *Exp.* 22–26 millim.

Genus **ERIZADA.**

	Type.
Erizada, Wlk. xxxii. 506 (1865)	*semifervens.*
Rhizana, Wlk. xxxiii. 719 (1865)	*semifervens.*
Tinosoma, Hmpsn. Moths Ind. ii. p. 426 (1894)	*semifervens.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head, smoothly scaled and with slight tuft of hair behind at extremity, the 3rd moderate, oblique; frons smooth; eyes large, round; antennæ of male typically bipectinate with long branches to beyond middle, the apical part ciliated; thorax clothed with hair and hair-like scales, the prothorax with spreading crest; tibiæ smoothly scaled; abdomen very long especially in male and with dorsal crest at base only. Fore wing with the costa highly arched, the termen slightly excised below apex and excurved at middle, the inner margin highly arched; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Antennæ of male bipectinate with long branches to beyond middle, the apical part ciliated.

6984. **Erizada semifervens.**

Gadirtha semifervens, Wlk. Journ. Linn. Soc., Zool. vii. p. 163 (1864).
Erizada lichenaria, Wlk. xxxii. 507 (1865).
Rhizana metarhoda, Wlk. xxxiii. 720 (1865).
Tinosoma hyperythrum, Hmpsn. Moths Ind. ii. p. 426 (1894).

Head, thorax, and abdomen pale red, the head, tegulæ, and prothorax suffused with green; pectus and ventral surface of abdomen white. Fore wing pale red, the inner medial area with slight purplish and fuscous suffusion; the basal costal area and the

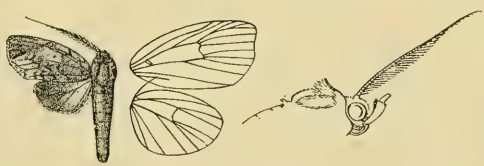


Fig. 222.—*Erizada semifervens*, ♂. ½.

apical area suffused with green; traces of a curved dark subbasal line from costa to submedian fold; antemedial line dark, oblique, waved; a black point in middle of cell; postmedial line dark,

oblique from costa to vein 6, then indistinct, waved, incurved below vein 4; subterminal line blackish, slightly waved below apex, angled inwards at discal fold to the postmedial line, then outwards to termen at vein 4, then very indistinct and sinuous; a terminal series of black points; cilia white at tips except at apex and cilia. Hind wing purplish red.

Ab. 1. Fore wing with the spot in middle of cell larger and a prominent black discoidal spot.

Ab. 2. Fore wing with black patch at middle of inner margin.

Hab. Bhután (*Dudgeon*), 1 ♀; Assam, Nága Hills (*Doherty*), type † ♂ *hyperythrum* in Coll. Rothschild; Travancore, Pirmád (*Mrs. Imray*), 1 ♀, Ashamboo Hills (*Fergusson*), 1 ♂; Andamans; Singapore (*Ridley*), 4 ♂, 7 ♀; Borneo, Sarawak (*Wallace*), type † in Mus. Oxon., Kuching (*Shelford*), 1 ♂; Java (*Horsfield*), 1 ♂, 1 ♀ types *lichenaria* and *metarhoda*; Bali (*Doherty*), 2 ♂. *Exp.* 26–30 millim.

Sect. II. Antennæ of male with very long cilia.

6985. Erizada subrubra.

Beara subrubra, Pag. Zoologica, xii. hft. 29, p. 94, pl. ii. f. 35 (1900).

Head and thorax greyish irrorated with brown; abdomen brown; pectus, ventral surface of abdomen, and anal tuft whitish. Fore wing greyish irrorated with brown; traces of an oblique sinuous brown antemedial line; two obliquely placed blackish discoidal points; traces of a waved brown postmedial line, bent outwards beyond the cell, then inwards below the cell and again excurved above inner margin; a subterminal series of brown points, excurved below vein 7 and incurved at discal fold; cilia white at tips.

Fig. 223.—*Erizada subrubra*, ♂. ½.

Hind wing red, the inner area suffused with brown; cilia brown at base, white at tips; the underside whitish, the terminal area suffused with red except towards apex.

Ab. 1. Fore wing with the ante- and postmedial lines distinct, the area between them strongly irrorated with brown.

Hab. Borneo, Sarawak (*Wallace*), 1 ♀, Sandakan (*Pryer*), 1 ♂; Pulo Laut (*Doherty*), 1 ♂; Br. N. Guinea, Milne Bay (*Meek*), 2 ♂; Bismarck Arch. *Exp.* 24–28 millim.

Sect. III. Antennæ of male almost simple.

6986. Erizada rufa.

Erizada rufa, Hmpsn. A. M. N. H. (7) xvi. p. 586 (1905).

♂. Head and thorax red-brown; pectus and legs whitish, fore tibiæ rufous, the tarsi banded with rufous; abdomen whitish, dorsally tinged with red except at base. Fore wing rufous, the basal costal area brown; a brown patch on costa from middle to near apex with a very oblique diffused rufous band from it to inner

Fig. 224.—*Erizada rufa*, ♂. ½.

margin; cilia deep rufous at base, whitish at tips. Hind wing pale red, the basal and costal areas slightly paler. Underside of fore wing suffused with fiery red except marginal areas.

Hab. Sula (*Wallace*), 1 ♂ type. *Exp.* 22 millim.

Genus PTYONOTA.

Type.

Ptyonota, Hmpsn. Moths Ind. ii. p. 424 (1894) ..... *formosa*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and slenderly scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of female almost simple; thorax clothed with scales and hair mixed and without crests; tibiæ smoothly scaled; abdomen with large fan-shaped basal crest. Fore wing with the apex produced and acute, the termen strongly excised below apex and slightly excurved at middle and vein 2; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 and 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 strongly stalked; 5 fully developed from angle of cell and closely approximated to 3, 4 for some distance; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

6987. Ptyonota formosa.

Ptyonota formosa, Hmpsn. Moths Ind. ii. p. 425 (1894).

♀. Head and tegulæ dark brown; thorax white mixed with purplish red; abdomen purplish red, the basal crest silvery white, the anal tuft white. Fore wing purplish red suffused with white except on inner half of antemedial area and the outer half of medial area; a brown subbasal band from costa to median nervure; antemedial line brown, sinuous, double and defined by white below the cell; a rufous point in end of cell and small discoidal lunule defined by rufous; an incurved line from lower angle of cell to inner margin; postmedial line indistinctly double filled in with

white, excurved below vein 7, incurved at discal fold, excurved and minutely waved at middle, incurved at submedian fold and again excurved at vein 1; subterminal line indistinct, excurved below vein 7 and at middle. Hind wing whitish suffused with red; the

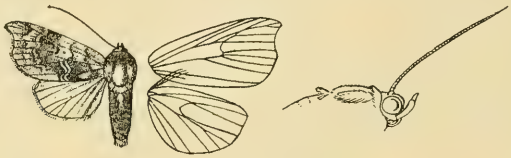


Fig. 225.—*Ptyonota formosa*, ♀. ½.

underside white with a purplish tinge, a patch of rufous suffusion on costal area before middle and a terminal series of points.

Hab. Burma, Tenasserim Valley (*Doherty*), type † ♀ in Coll. Druce; Singapore (*Ridley*), 1 ♀. *Exp.* 34 millim.

Genus **MICROZADA**, nov.

Type, *M. anæmica.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about vertex of head and smoothly scaled, the 3rd short; frons smooth; eyes large, round; antennæ of male bipectinate with long branches to two-thirds length, the apical part ciliated; thorax clothed with hair and scales mixed and without crests; tibiæ smoothly scaled; abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8, 9, 10 stalked; 10 from beyond 7, or abnormally 9, 10 anastomosing with 8 to form a long narrow areole; 11 from cell. Hind wing with veins 3, 4 strongly stalked; 5 fully developed from angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

6988. **Microzada anæmica**, n. sp.

♂. Head, thorax, and abdomen pinkish white, the head, tegulæ, and patagia tinged with sap-green; antennæ with the branches brown; abdomen with the basal crest tipped with black. Fore

Fig. 226.—*Microzada anæmica*, ♂. ⅔.

wing white tinged with purplish pink and suffused with sap-green except on terminal area; a slight dark antemedial line somewhat angled outwards on median nervure; a black point in middle of cell and small black discoidal lunule; an indistinct postmedial line,

defined on outer side by whitish, oblique from costa to vein 6, incurved at discal fold, oblique and waved below vein 4; an indistinct waved, whitish subterminal line with slight black spots on its outer edge, excurved below vein 7 and at middle; a terminal series of black points. Hind wing white slightly suffused with purplish red except on inner area; a terminal series of black points from apex to vein 3. Underside of fore wing suffused with purplish red except on inner area and termen.

The specimen from S. Nigeria has veins 9 and 10 anastomosing with 8 to form a long narrow areole.

Hab. Gold Coast, Kumasi (*Whiteside*), 2 ♂ type; S. Nigeria (*Sampson*), 1 ♂. *Exp.* 18 millim.

Genus **BEARA.**

Type.

Beara, Wlk. xxxv. 1703 (1866) ..... *dichromella.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to middle of frons, moderately scaled and slightly fringed with hair behind at extremity, the 3rd moderate, somewhat porrect; eyes large, round; frons smooth; antennæ of male typically bipectinate with moderate branches to two-thirds length, the apical part ciliated; thorax clothed with scales and hair mixed, the prothorax with spreading crest; tibiæ slightly fringed with hair; abdomen with small basal crest only. Fore wing with the costa highly arched near base, the apex somewhat produced and acute, the termen somewhat excised below apex, excurved at middle and oblique towards tornus; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 and 10 anastomosing with 8 to form a minute areole; 11 from cell. Hind wing with veins 3, 4 shortly stalked; 5 fully developed from angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Antennæ of male bipectinate with moderate branches to two-thirds length, the apical part ciliated; pectus without scale-fans.

A. Hind wing with the apical area suffused with red ..... *dichromella.*
B. Hind wing with the apical area suffused with purplish brown .. .. *nubiferella.*

6989. **Beara dichromella.**

Beara dichromella, Wlk. xxxv. 1703 (1866); Moore, Lep. Ceyl. ii. p. 115, pl. 123. ff. 2, 2*a*; Hmpsn. Moths Ind. ii. p. 428.

Head and thorax red-brown tinged with grey; pectus and legs

Fig. 227.—*Beara dichromella*, ♂. ½.

white, the fore and mid tibiæ and tarsi suffused with brown; abdomen white dorsally tinged with brown, the basal crest blackish.

Fore wing purplish red-brown tinged with grey and irrorated with black; an indistinct curved subbasal line; antemedial line indistinct, blackish, diffused, bent outwards at median nervure; a small blackish discoidal spot; postmedial line blackish, bent outwards below costa, slightly incurved at discal fold and strongly below vein 4, then oblique to inner margin; a subterminal series of blackish points, excurved below vein 7 and ending on termen at submedian fold; a terminal series of black points from apex to vein 2; cilia purplish red. Hind wing white, the terminal area and cilia suffused with red from apex to vein 2; a terminal series of black points from apex to vein 3; the underside with the costal area irrorated with red.

Hab. Bhután (*Dudgeon*), 1 ♂, 1 ♀; Madras, Nilgiris (*Hampson*), 1 ♂, 4 ♀, Coimbatore (*Walhouse*), 1 ♀; Tranvancore, Pirmád (*Mrs. Imray*), 1 ♀; Ceylon, Kandy (*Yerbury*), 4 ♀. *Exp.* 22–30 millim.

6990. **Beara nubiferella.** (Plate CLXXXIX. fig. 20.)

Beara nubiferella, Wlk. xxxv. 1704 (1866).

Head and thorax brown suffused with purplish grey; pectus and legs white, the fore and mid tibiæ and tarsi suffused with brown; abdomen white, dorsally suffused with brown. Fore wing brown suffused with silvery purplish grey and slightly irrorated with black; a brown patch at base of costa; an indistinct dark antemedial line, somewhat excurved at middle; postmedial line indistinct, bent outwards below costa, slightly incurved at discal fold and strongly below vein 4, a triangular dark shade beyond it on costal area; a slight minutely waved dark subterminal line, angled inwards at discal fold and ending on termen at submedian fold; a terminal series of dark points from apex to vein 2; cilia purplish, pale at tips. Hind wing white, the terminal area and cilia suffused with purplish brown from apex to vein 2 and with terminal dark points from apex to vein 3; the underside with the costal area irrorated with red.

Hab. Andamans, Port Blair, 1 ♀; Perak, Goping (*Künstler*), 1 ♀; Java (*Horsfield*), 1 ♀ type, Arjuno (*Doherty*), 1 ♂. *Exp.* 24–28 millim.

Sect. II. Antennæ of male minutely ciliated; pectus with large lateral fans of scales and hair mixed.

6991. **Beara papuana**, n. sp.

♂. Head, thorax, and abdomen purplish grey mixed with dark brown; pectus and ventral surface of abdomen white. Fore wing purplish grey, the costal area from middle to near apex pinkish, the apical area suffused with dark brown; antemedial line slight, dark, defined on inner side by white from costa to vein 2, an oblique pinkish bar beyond it across the cell and another pinkish bar on

discocellulars with some dark suffusion between them; postmedial line slight, double, dark filled in with pinkish, angled outwards below costa, incurved to vein 4, then somewhat oblique and minutely waved; a fine pale subterminal line, angled inwards at

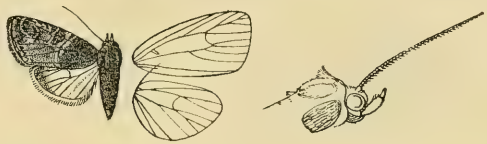


Fig. 228.—*Beara papuana*, ♂. ¾.

discal fold, then excurved and minutely waved; a fine black terminal line and white line at base of cilia. Hind wing white, the veins brown, the apical area suffused with brown; the underside with the costal area tinged with brown.

Hab. Dutch N. Guinea, Fak-fak (*Pratt*), 1 ♂ type. *Exp.* 20 millim.

Genus **GELASTOCERA.**

Type.

Gelastocera, Butl. A. M. N. H. (4) xx. p. 476 (1877) ..... *exusta.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about vertex of head, moderately scaled and slightly fringed with hair behind at extremity, the 3rd moderate, porrect; frons smooth, with tuft of hair above; eyes large, round; antennæ of male bipectinate with long branches to two-thirds length, the apical part ciliated; thorax clothed with hair and scales mixed and without crests; tibiæ slightly fringed with hair; abdomen with slight basal crest only. Fore wing with the apex somewhat produced and acute, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 and 10 anastomosing with 8 to form the rather long areole; 11 from cell. Hind wing with veins 3, 4 shortly stalked; 5 fully developed from just above angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the postmedial area suffused with fuscous; hind wing wholly suffused with brown ..... *exusta.*
B. Fore wing with the postmedial area not suffused with fuscous; hind wing yellowish white.
  a. Fore wing deep purplish chestnut ..... *castanea.*
  b. Fore wing ochreous suffused with purplish crimson ... *ochroleucana.*

6992. Gelastocera exusta.

Gelastocera exusta, Butl. A. M. N. H. (4) xx. p. 476 (1877); id. Ill. Het. B.M. ii. p. 13, pl. 24. f. 2; Kirby, Cat. Lep. Het. p. 613.
Microleon rubicundula, Wileman, Trans. Ent. Soc. 1911, p. 349, pl. xxx. f. 14.

Head and thorax red-brown; palpi at base, pectus and legs whitish suffused with brown, the tarsi banded with brown; abdomen grey-brown, the ventral surface whitish. Fore wing red-brown with a slight ochreous tinge, the terminal half tinged with purple

and the postmedial area suffused with fuscous; indistinct curved dark subbasal and antemedial lines; a faint dark discoidal annulus and incurved line from lower angle of cell to inner margin; postmedial line indistinct, dark, excurved below costa, incurved at discal fold and below vein 4; a punctiform blackish subterminal

Fig. 229.—*Gelastocera exusta*, ♂. ½.

line, excurved below vein 7 and at middle; cilia purple-red. Hind wing whitish suffused with fuscous brown, the termen and cilia tinged with purple-red except towards tornus; the underside whiter, the costal area and terminal area to vein 2 tinged with purplish.

Hab. Japan, Hakodaté, 1 ♂ type, Yokohama (*Andrewes*), 1 ♂, 2 ♀. *Exp.* 28–34 millim. Type † ♂ *rubicundula* in Coll. Wileman.

6993. Gelastocera castanea.

Beara castanea, Moore, Lep. Atk. p. 71, pl. 3. f. 9 (1879); Hmpsn. Moths Ind. ii. p. 427.

Head and thorax deep purplish chestnut; antennæ dark brown; pectus and legs whitish, the tibiæ and tarsi suffused with purple, the tarsi ringed with white; abdomen grey-brown, the anal tuft purplish, the ventral surface white. Fore wing deep purplish chestnut with a silvery gloss; traces of a diffused curved blackish subbasal line and oblique slightly waved antemedial line; an indistinct blackish discoidal lunule; postmedial line indistinct, blackish, excurved below costa and incurved below vein 4; a punctiform blackish subterminal line, excurved below vein 7 and at middle; a terminal series of black points. Hind wing yellowish white; the termen and cilia tinged with purple from apex to vein 2 and with terminal series of dark striæ; the underside with the costal area irrorated with red, the terminal area suffused with red from apex to vein 2.

Hab. Sikhim (*Atkinson, Möller*), 6 ♂, 3 ♀. *Exp.* 34–40 millim.

6994. Gelastocera ochroleucana.

Earias ochroleucana, Staud. Rom. Mém. iii. p. 176, pl. 8. f. 11 (1887); id. Cat. Lep. pal. p. 362; Kirby, Cat. Lep. Het. pp. 282, 613.

Head and thorax ochreous suffused with rufous; antennæ brown; pectus and legs white tinged with brown, the tarsi ringed with brown; abdomen white dorsally tinged with brown. Fore wing ochreous tinged with rufous, the terminal half suffused with

purplish crimson; a slight curved brownish subbasal line from costa to submedian fold; antemedial line brownish, excurved below costa and bent outwards at median nervure; a brownish point in middle of cell and ill-defined fuscous discoidal lunule; postmedial line indistinct, dark, excurved below costa, incurved at discal fold and below vein 4; an indistinct punctiform blackish subterminal line, slightly excurved below vein 7 and at middle. Hind wing ochreous white, the terminal area faintly tinged with brown and with traces of purplish on termen from apex to vein 2; the underside with the costal area and terminal area to vein 2 irrorated with purplish red.

Hab. E. Siberia, Amurland, Ussuri; Corea, Gensan (*Leech*), 1 ♂, 2 ♀. *Exp.* 30 millim.

Genus **BESSARA.**

Type.

Bessara, Wlk. Journ. Linn. Soc., Zool. vi. p. 180 (1862).... *quadratipennis.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd short, porrect; eyes large, round; antennæ of male with fasciculate cilia; thorax clothed with rough hair and scales mixed and without distinct crests; tibiæ fringed with long hair; abdomen with dorsal crest at base only. Fore wing short and broad, the costa nearly straight, the apex somewhat produced and acute, the termen evenly curved, nearly erect and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

6995. **Bessara quadratipennis.**

Bessara quadratipennis, Wlk. Journ. Linn. Soc., Zool. vi. p. 181 (1862); Swinh. Cat. Het. Mus. Oxon. ii. p. 98, pl. iii. f. 17.

♂. Head and thorax red-brown tinged with greyish; pectus whitish; abdomen grey suffused with reddish brown, the ventral surface whitish. Fore wing grey suffused and thickly irrorated

Fig. 230.—*Bessara quadratipennis*, ♂. ½.

with red-brown; traces of an oblique waved antemedial line; a blackish discoidal point; postmedial line indistinct, oblique to vein 6, then waved, incurved at discal fold and below vein 4; a faint waved whitish subterminal line defined on inner side by small dentate brown marks; cilia whitish intersected with brown at the

veins. Hind wing pale reddish brown; the underside whitish tinged and irrorated with rufous.

Hab. Borneo, Sarawak (*Wallace*), 1 ♂. *Exp.* 34 millim. Type † in Mus. Oxon.

Genus **ORTHOCRASPIS**, nov.

Type, *O. rectimarginata.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about vertex of head and broadly scaled, the 3rd moderate and thickly scaled; frons smooth, with tuft of hair above; eyes large, round; antennæ of male minutely ciliated; thorax clothed with hair and scales mixed and without crests; tibiæ smoothly scaled, the inner spurs very long; abdomen with dorsal crest at base only. Fore wing with the apex produced and acute, the termen quite straight and erect, the inner margin arched near base, then straight; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Hind wing whitish, the inner area suffused with brown ..... *rectimarginata.*
B. Hind wing wholly suffused with brown ..... *acypera.*

6996. Orthocraspis rectimarginata.

Carea rectimarginata, Hmpsn. Moths Ind. iv. p. 530 (1896).

♂. Head and thorax pale grey-brown with a few black scales; palpi black mixed with white; frons black-brown; the back of head, tegulæ and dorsum of thorax with paired black-brown streaks; pectus and legs white, the latter slightly tinged with brown, the fore tarsi blackish at extremity; abdomen white dorsally tinged with brown. Fore wing pale grey-brown sparsely irrorated with large black scales, the inner margin with rufous streak; a black

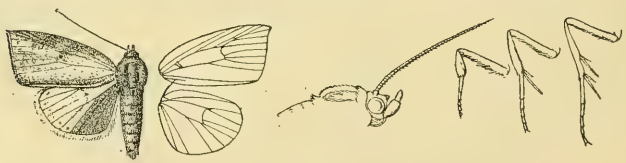


Fig. 231.—*Orthocraspis rectimarginata*, ♂. ½.

discoidal point; cilia white, red-brown at tips except towards tornus. Hind wing white, the inner area suffused with brown; a slight blackish discoidal point; the termen slightly irrorated with brown and with black subterminal point in discal fold. Underside of fore wing with diffused fuscous subcostal fascia to beyond middle, a terminal series of brown striæ; hind wing sparsely irrorated with large black scales except on inner area, the costal area tinged with pale brown, a black discoidal spot and subterminal spot in discal fold.

Hab. Bhután, 2500′ (*Dudgeon*), 1 ♂ type; Andamans (*Rogers*), 1 ♂. *Exp.* 30–34 millim.

6997. **Orthocraspis acypera.** (Plate CLXXXIX. fig. 21.)

Carea acypera, Hmpsn. A. M. N. H. (7) xvi. p. 593 (1905).

♂. Head, thorax, and abdomen pale grey-brown; palpi with the 3rd joint blackish; pectus, legs, and ventral surface of abdomen whitish. Fore wing pale grey-brown sparsely irrorated and striated with raised black scales; a slightly more prominent black discoidal point; cilia white at base, brown at tips except towards tornus. Hind wing greyish brown with blackish discoidal point; cilia whitish; the underside brownish white irrorated and striated with raised black scales, the black discoidal spot prominent.

Hab. Bali (*Doherty*), 1 ♂ type. *Exp.* 30 millim.

Genus **TYMPANISTES.**

	Type.
Tympanistes, Moore, P. Z. S. 1867, p. 48	*pallida.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and fringed with hair in front, the 3rd long; frons smooth; eyes large, round; antennæ of male almost simple; thorax clothed entirely with hair and without crests; tibiæ moderately fringed with hair; abdomen with some rough hair at base, but without crests; the male with very large lateral fans of scales at base covering a large ventral orifice. Fore wing with the apex produced and acute, the termen obliquely curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 and 10 anastomosing with 8 to form a rather small areole; 11 from cell. Hind wing with veins 3, 4 stalked; 5 fully developed from angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Hind wing wholly pale red	*testacea.*
B. Hind wing semihyaline white, the inner area tinged with red.	
a. Fore wing pale ochreous with small discoidal annulus	*rubidorsalis.*
b. Fore wing ochreous yellow with a brown discoidal point	*flavescens.*
C. Hind wing wholly semihyaline white	*pallida.*

6998. **Tympanistes testacea.**

Tympanistes testacea, Moore, P. Z. S. 1867, p. 49, pl. 6. f. 2; Hmpsn. Moths Ind. ii. p. 421.

♀. Head and base of tegulæ pale yellow-green; antennæ brownish; thorax pale rufous with some green hair behind the tegulæ; fore and mid tibiæ and tarsi tinged with green, the tarsi ringed with white; abdomen dull crimson-red, the ventral surface white. Fore wing pale ochreous tinged with red and with numerous brown striæ; the base and costa suffused with pale yellow-green; some dark suffusion on inner margin near base; an indistinct diffused dark antemedial line excurved from costa to

median nervure, then incurved; a small black discoidal spot; post-medial line placed just beyond the cell, rather diffused, dark, slightly incurved below vein 3; subterminal line represented by a series of slight blackish somewhat dentate marks, incurved at middle and below vein 3; a terminal series of small black spots. Hind wing pale red; the underside whitish tinged with red, the costal area and terminal area to vein 2 striated with brown, a slight discoidal lunule.

Hab. Sikhim, 3 ♀ type. *Exp.* 40–44 millim.

6999. Tympanistes rubidorsalis.

Tympanistes rubidorsalis, Moore, P. Z. S. 1888, p. 409; Butl. Ill. Het. B.M. vii. p. 52, pl. 126. f. 5; Hmpsn. Moths Ind. ii. p. 421.

♂. Head and thorax brown mixed with grey-white; palpi white, the 2nd joint black behind; pectus and legs white, the tibiæ and tarsi tinged with ochreous brown; abdomen white dorsally suffused with crimson-red. Fore wing pale ochreous slightly irrorated with brown; a small white discoidal spot defined by black; traces of a dark postmedial line, oblique from costa to vein 7, slightly incurved at discal fold and below vein 3, excurved above inner margin; a terminal series of black points. Hind wing semihyaline white, the inner area faintly tinged with reddish.

Hab. Punjab, Dharmsála (*Hocking*), 4 ♂ type. *Exp.* 50 millim.

7000. Tympanistes flavescens. (Plate CLXXXIX. fig. 22.)

Tympanistes flavescens, Swinh. A. M. N. H. (7) xv. p. 158 (1905).

♂. Head and thorax ochreous mixed with brown; abdomen whitish dorsally suffused with crimson. Fore wing ochreous yellow irrorated with reddish brown; a subbasal brown point on median nervure and slight antemedial spot below costa; a rather diffused brown line from middle of costa, bent inwards below costa and angled outwards at median nervure, then sinuous and almost obsolete towards inner margin; a brown discoidal point; post-medial line brown, bent outwards below costa, then dentate, incurved at discal fold and below vein 4 and bent outwards at vein 1, traces of another waved line beyond it with a diffused brown spot on costa; subterminal line formed of dentate brown marks, angled inwards below vein 8 and above and below vein 5, excurved below vein 7 and at middle; a terminal series of black points from apex to submedian fold. Hind wing semihyaline white, the inner area tinged with crimson; a terminal series of slight brown points in the interspaces from apex to vein 2; the underside white, the costa slightly tinged with brown, three black points on termen between apex and discal fold.

Hab. Assam, Khásis, 1 ♂ type. *Exp.* 40 millim.

7001. Tympanistes pallida.

Tympanistes pallida, Moore, P. Z. S. 1867, p. 49, pl. 6. f. 1; Hmpsn. Moths Ind. ii. p. 421.

Head and thorax ochreous tinged with greyish; pectus white; legs ochreous; abdomen white dorsally tinged with ochreous brown. Fore wing white tinged and irrorated with ochreous brown; an indistinct sinuous brownish antemedial line; a brown point in end of cell and slight discoidal spot; postmedial line brownish, oblique to vein 6, then slightly waved, incurved at discal fold and below

Fig. 232.—*Tympanistes pallida*, ♂. ½.

vein 4; a somewhat maculate brownish subterminal line excurved below vein 7 and at middle; a terminal series of brown points. Hind wing semihyaline white with a terminal series of slight brown points in the interspaces from apex to vein 2.

Hab. Sikhim (*Lidderdale, Möller*), 5 ♂, 3 ♀ type. *Exp.* 44–52 millim.

Genus **ACACHMENA**.

Type.

Acachmena, Turner, Tr. R. Soc. S. Austr. xxxii. p. 62 (1908) ... *œnocrossa*.

Probosecis fully developed; palpi upturned, short; the 2nd joint broadly angled with scales in front, the 3rd short; frons smooth; antennæ of female ciliated; head and thorax clothed with scales, the metathorax with ridge-like crest; tibiæ smoothly scaled; abdomen with dorsal crests on two basal segments. Fore wing with the apex acute, the termen obliquely curved; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

*7002. Acachmena œnocrossa.

Acachmena œnocrossa, Turner, Tr. R. Soc. S. Austr. xxxii. p. 62 (1908).

♀. Head and thorax whitish tinged with red; antennæ slightly ringed with black; metathoracic crest tipped with deep red; pectus white; abdomen white slightly irrorated with fuscous, the crests red. Fore wing brownish white tinged with red and irrorated with fuscous, the costal edge red, the inner margin reddish; traces of a

curved antemedial line, of a waved medial line excurved below costa, and of a postmedial line excurved below costa and at middle;

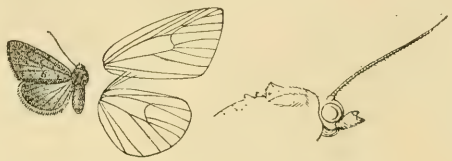


Fig. 233.—*Acachmena œnocrossa*, ♀. ½.

traces of a subterminal series of dark points; cilia deep blood-red. Hind wing whitish tinged with brown.

Hab. Queensland, Kuranda (*Dodd*), type † ♀ in Coll. Turner. *Exp.* 20 millim.

Genus **ACRIPIA**.

	Type.
Acripia, Wlk. xxvii. 9 (1863)	*subolivacea.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd moderate; frons smooth, with tuft of hair above; eyes large, round; antennæ of male ciliated; thorax clothed with hair and scales mixed, the tegulæ produced to a slight dorsal ridge, the prothorax with triangular ridge-like crest; tibiæ slightly fringed with hair; abdomen with dorsal crest at base only. Fore wing short and broad, the costa highly arched near base, the apex produced and acute, the termen excised below apex and towards tornus and excurved at middle; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the apical area not tinged with green.	
a. Thorax and base and medial area of fore wing dark red-brown mottled with rufous	*scapularis.*
b. Thorax and base and medial area of fore wing brownish-grey	*subolivacea.*
B. Fore wing with the apical area tinged with green.	
a. Tegulæ fulvous red	*leprosa.*
b. Tegulæ fuscous edged with white	*chloropera.*
C. Fore wing uniform olive-green	*semiviridis.*

*7003. Acripia scapularis.

Plastenis scapularis, Feld. Reis. Nov. pl. 111. f. 10 (1874).

♀. Head grey mixed with brown; thorax rufous mixed with red-brown; palpi white at base; pectus white; legs whitish mixed with brown, the tarsi brown ringed with white; abdomen grey-brown, the ventral surface whitish mixed with red-brown. Fore wing brownish grey slightly irrorated and striated with brown; a red-brown patch at base from costa to vein 1; the medial area suffused with rufous and with numerous striæ of black-brown scales, its inner edge angled outwards at subcostal and

median nervures and incurved in cell and above vein 1, its outer edge oblique towards costa and excurved beyond the angles of cell and above inner margin. Hind wing reddish brown, the costal area and cilia white; the underside whitish tinged with rufous except on inner area and with numerous lines formed of black-brown striæ, a black-brown discoidal spot.

Hab. Cape Colony, Knysna (*Trimen*), type † ♀ in Coll. Rothschild. *Exp.* 38 millim.

7004. Acripia subolivacea.

Acripia subolivacea, Wlk. xxvii. 9 (1863).
Plastenis marginea, Feld. Reis. Nov. pl. 111. f. 8 (1874).

Head and base of tegulæ brown, the rest of thorax and abdomen white mixed with brown. Fore wing white tinged with brown and irrorated and striated with dark brown; a round black discoidal spot with white point in centre; traces of a double punctiform

Fig. 234.—*Acripia subolivacea*, ♂. ½.

black line oblique from costa beyond middle to near termen at vein 4, then erect; some subapical black points. Hind wing whitish suffused and irrorated with brown, a faint dark discoidal point; the underside with very prominent black-brown striæ.

Hab. Cape Colony (*Sir A. Smith*), 1 ♂, 1 ♀ type. *Exp.* 32 millim.

7005. Acripia leprosa.

Plastenis leprosa, Feld. Reis. Nov. pl. 111. f. 9 (1874).

♀. Head brown mixed with white, the vertex green, the palpi white at base; tegulæ, base of patagia, and prothorax fulvous red, the rest of thorax purplish brown, the crest tipped with black; pectus and legs white irrorated with brown, the tarsi brown ringed with white; abdomen red-brown. Fore wing brownish grey suffused in parts with purplish fuscous and sparsely irrorated and striated with black; the basal area fulvous red from costa to vein 1, with a black point at base; a diffused dark antemedial line, oblique from costa to median nervure, then inwardly oblique; a small grey-brown spot in middle of cell and larger discoidal spot with white points in centre; a slight greenish tinge beyond and below end of cell; postmedial line rather diffused, brown, oblique

towards costa, angled outwards beyond the angles of cell and excurved above inner margin; an indistinct diffused brownish subterminal line, excurved below vein 7 and at middle and ending at tornus; the apical area suffused with yellow-green, with some brown below it. Hind wing pale reddish brown with a diffused dark subterminal shade; the underside white, the costal and terminal areas tinged with rufous, numerous lines formed of dark brown striæ, a dark brown discoidal bar.

Hab. Transvaal, Johannesburg (*Cooke*), 1 ♀; Cape Colony, Cape Town, type † ♀ in Coll. Rothschild. *Exp.* 34 millim.

7006. Acripia chloropera. (Plate CLXXXIX. fig. 23.)

Acripia chloropera, Hmpsn. Ann. S. Afr. Mus. ii. p. 313 (1902).

♀. Head and tegulæ grey mixed with fuscous, the latter edged with white; thorax deep chocolate-brown; pectus and legs grey-white, the tarsi banded with black; abdomen fuscous with white segmental lines, the ventral surface whitish, the anal tuft ochreous. Fore wing deep chocolate-brown with a purplish tinge and numerous slight dark striæ; a black point in middle of cell and elliptical discoidal spot with slight whitish streak in centre, placed on a grey band from just below middle of costa, forking at median nervure, the inner arm running to inner margin before the middle and the outer to near tornus; the apical part of costal area pale green with some obliquely placed subapical black points on it; a fine dark terminal line. Hind wing reddish brown, the cilia whitish tinged with brown; underside brownish white, the costa of fore wing and the hind wing with prominent black striæ and small discoidal spots.

Hab. Cape Colony, Annshaw (*Miss F. Barrett*), 1 ♀ type. *Exp.* 32 millim.

7007. Acripia semiviridis. (Plate CLXXXIX. fig. 24.)

Acripia semiviridis, Hmpsn. Ann. S. Afr. Mus. ii. p. 445 (1902).

♂. Head and thorax olive-green; palpi grey tinged with brown; pectus and legs grey, the tarsi blackish ringed with white; abdomen fuscous with slight grey segmental lines, the ventral surface grey suffused with brown. Fore wing olive-green with numerous slight pale striæ; a faint oblique postmedial shade from costa to vein 6; a subterminal series of slight black points excurved below vein 7 and at middle. Hind wing fuscous brown, the cilia grey at tips. Underside grey, the disk of fore wing suffused with fuscous brown, the costal area of fore wing and the hind wing with prominent black striæ.

Hab. Transvaal, Belfast (*Cooke*), 1 ♂; Natal, Durban (*Leigh*), 1 ♂ type. *Exp.* 26–30 millim.

Genus CHURIA.

Type.
Churia, Moore, P. Z. S. 1881, p. 359 ..... *nigrisigna*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and moderately scaled, the 3rd long; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen without crests. Fore wing with the apex rectangular, the termen evenly curved and not crenulate; veins 3 and 4 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the ante- and postmedial lines present ..... *ocellata*.
B. Fore wing with the ante- and postmedial lines absent.
a. Fore wing grey-brown ..... *maculata*.
b. Fore wing pale brownish ochreous ..... *nigrisigna*.

7008. Churia ocellata.

Anomis ocellata, Butl. Ill. Het. B.M. vii. p. 72, pl. 131. f. 4 (1889); Hmpsn. Moths Ind. ii. p. 418.

Head and thorax grey-brown with a reddish tinge; palpi at base, pectus and legs whitish, the fore femora fuscous above, the fore and mid tibiæ tinged with brown, the tarsi blackish ringed with white; abdomen grey tinged with brown, the ventral surface whitish. Fore wing grey-brown with a reddish tinge and irrorated and striated with black; a small antemedial blackish spot on costa with traces of a waved line from it to inner margin; a blackish

Fig. 235.—*Churia ocellata*, ♂. ¾.

discoidal spot; a small blackish postmedial spot on costa with the faint postmedial line arising from it, oblique to vein 6, incurved at discal fold and below vein 4, excurved at vein 1; traces of a punctiform subterminal line excurved below vein 7 and at middle. Hind wing whitish suffused with brown; the underside whitish, the costal area and terminal area to vein 3 irrorated with brown.

Hab. Punjab, Kulu, Sultanpur (*G. Young*), 4 ♂, Dalhousie, 1 ♂, 1 ♀, Simla (*Harford*), 1 ♂, 1 ♀, Kasauli, 1 ♀, Murree (*Harford*), 1 ♀, Dharmsála (*Hocking*), 3 ♂, 4 ♀ type; Assam, Nágas. *Exp.* 28–34 millim.

7009. Churia maculata.

Churia maculata, Moore, P. Z. S. 1881, p. 360; id. Lep. Ceyl. iii. p. 50, pl. 150. f. 7; Hmpsn. Moths Ind. ii. p. 418.

Head and thorax pale grey-brown; palpi fuscous brown, whitish at base and in front; pectus and legs whitish tinged with brown; abdomen whitish dorsally tinged with brown. Fore wing pale grey-brown with faint brown striæ on costal area; a small round black discoidal spot; a subterminal black point below vein 7 and traces of other points below veins 4 and 2. Hind wing pale ochreous brown, the cilia ochreous white; the underside ochreous white, the costal area and terminal area to vein 2 slightly irrorated with fuscous.

Ab. 1. Fore wing with the costal half prominently irrorated with black; small black spots with white centres at middle of cell and on discocellulars.

Hab. Madras, Nilgiris (*Hampson*), 1 ♂, 2 ♀, Palnis (*Campbell*), 1 ♀; Ceylon. *Exp.* 28–30 millim.

*7010. Churia nigrisigna.

Churia nigrisigna, Moore, P. Z. S. 1881, p. 360, pl. 37. f. 13; Hmpsn. Moths Ind. ii. p. 418.
Churia ochracea, Moore, P. Z. S. 1881, p. 360.

Head, thorax, and abdomen pale brownish ochreous. Fore wing pale brownish ochreous with a small black discoidal spot; cilia ochreous white. Hind wing pale brownish ochreous, the cilia ochreous white; the underside paler.

Ab. 1. *ochracea*. Paler and more ochreous; fore wing without black discoidal spot.

Hab. Bengal, Calcutta, type † in Mus. Berlin. *Exp.* 26 millim.

Genus TORTRICIFORMA.

Type.
Tortriciforma, Hmpsn. Moths Ind. ii. p. 425 (1894)..... *viridipuncta*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and sparsely fringed with long hair in front, the 3rd long and oblique; frons smooth, with very large tuft of hair above; eyes large, round; antennæ of male almost simple; thorax clothed with hair and scales mixed and without crests; mid tibiæ fringed with long hair in front, the fore and hind tibiæ slightly fringed with hair; abdomen without crests. Fore wing with the costa strongly excised beyond middle, the apex produced to a hook, the termen excised below apex, produced to a hook at vein 6 and excurved at middle; veins 3 and 5 from near angle of cell; 6, 7 from upper angle; 8, 9, 10 stalked; 11 from cell. Hind wing with the termen excurved at middle, the tornus strongly excised in male, the inner margin forming a pointed lobe fringed with long hair and with small tuft of hair in a fold on underside; veins 3, 4 stalked; 5 fully developed from just above angle of cell; 6, 7 shortly stalked; 8 anastomosing with the cell near base only.

A. Fore wing with the terminal area tinged with green ..... *chloroplaga*.
B. Fore wing with the terminal area not tinged with green . *viridipuncta*.

7011. Tortriciforma chloroplaga. (Plate CLXXXIX. fig. 25.)

Tortriciforma chloroplaga, Hmpsn. A. M. N. H. (7) xvi. p. 587 (1905).

♀. Head and thorax grey-white; palpi, pectus, legs and abdomen ochreous tinged with rufous. Fore wing ochreous white, the base and terminal area tinged with green, the costa faintly tinged with rufous; a small fiery red streak on base of inner margin; an irregularly elliptical dark sap-green subbasal patch from costa to median nervure, its lower part diffused, with some reddish brown on subcostal nervure; a black discoidal point; a faint diffused brownish medial line from vein 2 to inner margin; an oblique sap-green streak from costa just beyond middle to vein 7 with traces of a sinuous postmedial line arising from it, some rufous on costa beyond it with some grey below it before the subterminal line which is represented by a series of small obscure blackish marks strongly angled outwards at vein 7 and middle; a whitish subapical spot. Hind wing yellow, the inner area tinged with fiery red; a red discoidal point; a diffused red subterminal line and narrow terminal band. Underside of fore wing tinged with fiery red; hind wing with some red irroration on costal area, a red discoidal lunule, sinuous red postmedial and subterminal lines from costa to vein 5, some grey on termen.

Hab. Perak, Larut Hills (*S. S. Flower*), 1 ♀ type. *Exp.* 24 millim.

7012. Tortriciforma viridipuncta.

Tortriciforma viridipuncta, Hmpsn. Moths Ind. ii. p. 425 (1894).

♂. Head and thorax purple-grey, the tegulæ deep sap-green; palpi brownish; the tarsi brownish ringed with white; abdomen grey-white with fulvous yellow segmental lines on ventral surface. Fore wing purple-grey, the inner area deeper purple except towards base; a sap-green antemedial band edged by white and on outer side also by black, oblique, sinuous, from costa to vein 1, constricted

Fig. 236.—*Tortriciforma viridipuncta*, ♂. ½.

at submedian fold; a black discoidal point; an oblique postmedial green lunule defined by whitish and on inner side also by black, followed by a green line incurved below vein 4; an indistinct waved dark subterminal line, with a whitish patch on its outer side below costa, excurved below vein 7 and at middle; some

blackish at base of cilia. Hind wing white; a slight rufous discoidal striga; cilia rufous from apex to vein 2 on the extremity of which the rufous forms a slight streak. Underside of fore wing tinged with cupreous red except the inner area, the costal area irrorated with red to beyond middle, the apical parts of costal and terminal areas suffused with greenish grey and with a white subapical spot above vein 7; hind wing with the costal area and the terminal area to vein 3 tinged with yellow and irrorated with red, a red discoidal bar and sinuous postmedial and subterminal lines from costa to vein 3.

♀. Fore wing tinged with orange-red except on costal area; hind wing tinged with orange-red, deeper on apical area, the inner area pale purplish grey.

Hab. Sikhim, type † ♀ in Coll. Rothschild; Assam, Khásis, 1 ♂, 1 ♀. *Exp.* ♂ 22, ♀ 28 millim.

Genus **CHLOROPLAGA**, nov.

Type, *C. nygmia.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to middle of frons and slenderly scaled, the 3rd long; frons smooth; eyes large, round; antennæ of male almost simple; thorax clothed with hair and scales mixed and without crests; tibiæ slightly fringed with hair; abdomen with dorsal crest at base only, the male with large lateral fans of scales covering a very large ventral orifice. Fore wing with the apex somewhat produced and acute, the termen evenly curved and not crenulate, the inner margin lobed; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8, 9, 10 stalked, 10 from beyond 7; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

7013. **Chloroplaga nygmia.**

Acontia nygmia, Swinh. A. M. N. H. (6) xii. p. 217 (1893).

♂. Head and thorax pale red-brown tinged with grey, the vertex of head with some green; palpi with some green at side of 2nd joint; pectus whitish; legs grey-brown, the fore coxæ red, the tibiæ and tarsi at base suffused with green in front; abdomen

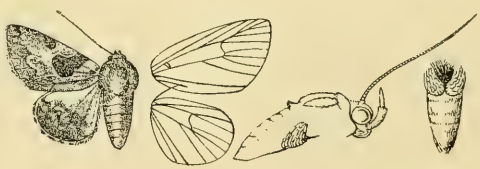


Fig. 237.—*Chloroplaga nygmia*, ♂. ½.

blood-red. Fore wing silvery grey tinged with red and in parts with green and irrorated with black; some blood-red at base of inner margin; small obliquely placed sap-green subbasal spots below costa and in the cell; a sap-green antemedial patch on costa

conjoined to a lunulate medial patch in and below the cell, slightly defined by whitish, and with the slight excurved antemedial line from its inner edge to inner margin; a postmedial green spot on costa with the faint postmedial line arising from it, excurved at discal and submedian folds and incurved beyond lower angle of cell and at vein 1; a small subterminal green spot below costa with the slight dentate dark subterminal line arising from it, excurved below vein 7 and at middle. Hind wing ochreous whitish suffused with blood-red, the costal area whitish to beyond middle, the terminal area deep blood-red; a slight discoidal point; two deep blood-red postmedial lines from below costa to submedian fold, the outer incurved at discal fold and excurved beyond lower angle of cell; cilia grey-brown; the underside greyish ochreous, the costal area except at base and the terminal area to vein 3 irrorated with blood-red, a small discoidal spot.

♀. Head, thorax, abdomen, and fore wing much paler; hind wing yellow slightly tinged in parts with blood-red, the postmedial lines much more prominent.

Hab. Straits Settlements, Perak, Larut Hills (*Flower*), 1 ♀, Johore (*Ridley*), 1 ♀, Singapore (*Ridley*), 3 ♂, 3 ♀ type; Borneo, 1 ♀, Kuching (*Shelford*), 1 ♀. *Exp.* 34 millim.

Genus **GONIOCALPE**, nov.

Type, *G. sericealis*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and smoothly scaled, the 3rd long; frons smooth, with tuft of hair above; eyes large, round; antennæ of female almost simple; thorax clothed almost entirely with scales and with sharp dorsal ridge-like crest; tibiæ smoothly scaled; abdomen with dorsal crests on two basal segments and forked anal tuft. Fore wing with the apex produced and acute, the termen excised to vein 4 where it is strongly angled, then somewhat crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

7014. Goniocalpe sericealis.

Erizada sericealis, Hmpsn. Ann. S. Afr. Mus. ii. p. 318 (1902).

♀. Head and thorax grey tinged with red-brown and irrorated

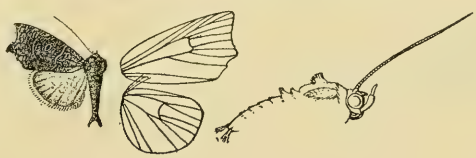


Fig. 238.—*Goniocalpe sericealis*, ♀. ½.

with a few large black scales; pectus whitish; abdomen whitish irrorated with a few black scales, the crests tipped with brown.

Fore wing silvery with golden reflections, the surface being striated, irrorated with a few black scales; antemedial line double filled in with whitish, oblique, sinuous; reniform small, oblique elliptical, slightly defined by whitish and black scales; postmedial line double filled in with whitish, excurved from costa to vein 4 and incurved in submedian fold; a subterminal series of small black spots, angled outwards below vein 7 and at middle. Hind wing very pale yellow; cilia white at tips. Underside of both wings yellowish white.

Hab. Natal, Estcourt (*Hutchinson*), 1 ♀, Durban (*Leigh*), 2 ♀ type. *Exp.* 24 millim.

Genus **PLUSIOCALPE.**

Type.

Plusiocalpe, Holl. Psyche, vii. p. 29 (1894) ..... *pallida*

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and moderately scaled, the 3rd rather long; frons smooth; eyes large, round; antennæ of male with fasciculate cilia; thorax clothed almost entirely with scales and without crests; fore and hind tibiæ slightly fringed with hair, the mid tibiæ fringed with long hair; abdomen with dorsal crests on basal segments. Fore wing with the apex rounded, the termen evenly curved and not crenulate, the tornus with scale-tooth, the inner margin with lobe before middle; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 and 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Hind wing of male with thick fringe of long hair on inner area above.

7015. Plusiocalpe sericina.

Metaptya sericina, Mab. Ann. Soc. Ent. Fr. 1899, p. 730.

♂. Head and tegulæ ochreous white; thorax white faintly tinged with purplish brown and irrorated with a few brown scales; pectus and legs ochreous white; abdomen ochreous white dorsally suffused with fuscous brown except at base and extremity. Fore

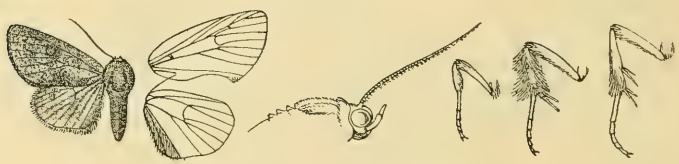


Fig. 239.—*Plusiocalpe sericina*, ♂. ½.

wing silky ochreous white tinged with brown and sparsely irrorated with black scales; the ante- and postmedial lines represented by white striæ at inner margin, the former with a streak of white

scaling before it; the scale-tooth at tornus tipped with dark brown. Hind wing ochreous white tinged with brown, the fringe of thick hair on inner margin dark brown; cilia whiter at tips.

Hab. Madagascar (*Saalmüller*), 1 ♂. *Exp.* 32 millim.

Sect. II. Hind wing of male without fringe of long hair on inner area.

7016. Plusiocalpe pallida.

Plusiocalpe pallida, Holl. Psyche, vii. p. 29, pl. 1. f. 1 (1894).

Head and tegulæ pale rufous, the latter tipped with white; palpi browner at sides; thorax white faintly tinged with brown and irrorated with a few brown scales; pectus and legs ochreous tinged with brown; abdomen ochreous white dorsally suffused with brown. Fore wing silky white tinged with brown and sparsely irrorated with brown scales; an indistinct oblique sinuous brown antemedial line strongly excurved below the cell; postmedial line brown, oblique to vein 6, inwardly oblique from vein 5

Fig. 240.—*Plusiocalpe pallida*, ♂. ½.

to submedian fold near the antemedial line, then excurved above and below vein 1 on which it is angled inwards; an indistinct brownish subterminal line, excurved below vein 7 and at middle and angled inwards at discal and submedian folds. Hind wing ochreous white suffused with brown especially on terminal area; cilia with a pale line at base. Underside of fore wing brown, the costa ochreous white on terminal half; hind wing ochreous white.

Hab. S. Nigeria, Old Calabar (*Rutherford*, *Crompton*), 2 ♂, 1 ♀, Sapele (*Sampson*), 1 ♂; N. Nigeria, Dekina (*Macfie*), 1 ♂; Gaboon, Ogové R., 1 ♀ co-type; Uganda, Entebbe (*Minchin*), 1 ♂. *Exp.* 30 millim.

Genus HYPODEVA.

	Type.
Hypodeva, Holl. Psyche, vii. p. 27 (1894)	*barbata*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and rather slenderly scaled, the 3rd long; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed with hair and scales mixed, the pro- and metathorax with spreading crests, the patagia clothed with rough curled-upwards spatulate scales; pectus clothed with long hair, the tibiæ moderately fringed with hair; abdomen with dorsal crests on two basal

segments, the crest on 2nd segment large. Fore wing with the apex rounded, the termen evenly curved and not crenulate, the tornus with scale-tooth, the inner margin lobed before middle; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the reniform defined by whitish and with pale patch beyond it ..... *barbata*.
B. Fore wing with the reniform absent and without pale patch beyond the cell ..... *nocturna*.

7017. Hypodeva barbata.

Hypodeva barbata, Holl. Psyche, vii. p. 27, pl. 1. f. 2 (1894).

Head and thorax dark brown mixed with red-brown and grey; pectus reddish ochreous; abdomen grey suffused with fuscous brown, the crests reddish brown, the ventral surface white. Fore wing yellowish suffused with olive-green; a broad purple band from discal fold to inner margin, diffused to base below the cell, before the antemedial white line which is represented by an oblique striga from costa and oblique sinuous line from discal fold to inner margin; reniform a narrow bar, greyish defined by white and with black point in upper part, a white patch above it on costa

Fig. 241.—*Hypodeva barbata*, ♂. ¾.

and some black streaks on the veins beyond it below costa; post-medial line chocolate-brown, acutely angled outwards below costa, then oblique, sinuous, the area beyond it purple with the costa chocolate-brown with some white striæ on it; postmedial area with olive-yellow patches defined by red-brown and with the veins crossing them dark, at vein 6, on veins 4, 3, and at inner margin, the last almost entirely suffused with red-brown; traces of a sinuous white subterminal line and of a minutely waved line just before the terminal series of slight brown striæ; cilia grey mixed with brown and with fine white line at base. Hind wing dark brown, the cilia white, brownish at base; the underside greyish suffused with brown, a dark discoidal lunule and yellowish white postmedial patch from costa to vein 5 with the veins on it dark.

Hab. S. Nigeria, Lagos (*Boag*), 1 ♂, Sapele (*Sampson*), 1 ♂, Ilesha (*Dudgeon, Humfrey*), 2 ♀; Gaboon. *Exp.* 34 millim.

7018. **Hypodeva nocturna.** (Plate CLXXXIX. fig. 26.)

Westermannia nocturna, Hmpsn. A. M. N. H. (7) xvi. p. 591 (1905).

♂. Head, thorax, and abdomen pale greyish brown. Fore wing pale reddish brown suffused with greyish and irrorated with a few dark scales; an oblique brown striga from middle of costa; a slight curved discoidal bar; an oblique brown streak from costa beyond middle to vein 6 with a greyer patch beyond it; traces of a subterminal line excurved below costa and at middle. Hind wing uniform rather pale red-brown; the underside greyer, tinged with fuscous from lower angle of cell to termen.

Hab. Nigeria, Old Calabar (*Crompton*), 1 ♂ type. *Exp.* 38 millim.

Genus **METAPTYA.**

Type.

Metaptya, Hmpsn. Moths Ind. iv. p. 522 (1896) ..... *sericea.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about vertex of head and slenderly scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales, the metathorax with dorsal ridge-like crest; tibiæ slightly fringed with hair; abdomen with dorsal crests on basal segments, the crest on 2nd segment large. Fore wing with the apex produced and acute, the termen somewhat excised below apex and excurved at middle; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 and 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only; the tornus with a large fan of scales.

Sect. I. Fore wing with the termen angled at veins 7 and 4 and excised between those points.

7019. **Metaptya lucida.**

Metaptya lucida, Hmpsn. A. M. N. H. (7) xvi. p. 587 (1905).

♂. Head, thorax, and abdomen brownish grey; palpi white in front; tarsi with fuscous bands. Fore wing ochreous brown

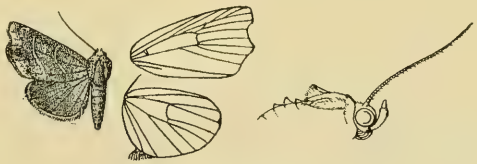


Fig. 242.—*Metaptya lucida*, ♂. ½.

suffused with glistening grey and irrorated with a few black scales; a fine obliquely curved whitish antemedial line; a slight

black point at upper angle of cell; a fine whitish postmedial line excurved from costa to vein 4, then incurved; some slight black streaks on costa towards apex; subterminal line represented by some black scales, a small spot below costa and rather bifid spot between veins 5 and 3; cilia blackish at the angle at vein 4. Hind wing ochreous brown suffused with glistening grey; a slight black and white striga on inner margin above tornus. Underside fuscous brown, the inner area of fore wing and hind wing except terminal area whitish, both wings with rather diffused, slightly sinuous postmedial line and dark point at upper angle of cell.

Hab. Bali, Low Country (*Doherty*), 1 ♂ type. *Exp.* 26 millim.

Sect. II. Fore wing with the termen slightly excised below apex and excurved at middle.

A. Fore wing with oblique blackish bar on antemedial line above inner margin ..... *sericea.*
B. Fore wing with blackish patch on antemedial line at inner margin ..... *endoplaga.*

7020. Metaptya sericea.

Metaptya sericea, Hmpsn. Moths Ind. iv. p. 523 (1896).

Head, thorax, and abdomen pale grey-brown, the head and thorax irrorated with a few black scales and the crest tipped with black; palpi blackish behind. Fore wing pale grey-brown slightly irrorated with black; antemedial line whitish defined on outer side by fuscous and more prominently by black towards inner margin, strongly excurved; two slight blackish discoidal points; postmedial line whitish defined on inner side by fuscous, excurved

Fig. 243.—*Metaptya sericea*, ♂. ½.

from costa to vein 4, then oblique; some white points on costa towards apex; a slight whitish subterminal line defined on inner side by fuscous suffusion, excurved below vein 7 and at middle. Hind wing grey-brown with some blackish scales on inner area towards tornus and in the scale-fan at tornus; the underside whitish tinged with brown.

Hab. Ceylon, Putlam (*Pole*), 1 ♂ type, Dambool (*Mackwood*), 1 ♂, 1 ♀. *Exp.* 22–28 millim.

7021. **Metaptya endoplaga.** (Plate CLXXXIX. fig. 27.)

Metaptya endoplaga, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 655 (1907).

♂. Head white tinged with brown, the palpi blackish behind; thorax and abdomen pale grey-brown, the crests tipped with black; fore and mid tibiæ banded with blackish. Fore wing pale grey-brown with a slight reddish tinge; traces of a curved antemedial line with conical black patch on it at inner margin; postmedial line whitish defined on inner side by brown, excurved from costa to vein 4, then oblique; some whitish points with slight black streaks between them on costa towards apex; a subterminal series of small somewhat dentate blackish marks, excurved below vein 7 and at middle. Hind wing whitish suffused with brown; traces of a dark postmedial line with blackish mark on it at inner margin; some black scaling in the fan at tornus; the underside whitish tinged with brown.

Hab. Madras, Bellary, Ramandrug (*Campbell*), 1 ♂ type. *Exp.* 22 millim.

Genus **VESTERMANNIA.**

	Type.
Westermannia, Hübn. Verz. p. 250 (1827)	*superba.*
Plusiodes, Guen. Noct. ii. p. 385 (1852)	*superba.*
Calymera, Moore, Lep. Atk. p. 104 (1882)	*picta.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about vertex of head and moderately scaled, the 3rd rather long or moderate; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed with scales and hair mixed; the pro- and metathorax with small spreading crests; tibiæ slightly fringed with hair; abdomen with dorsal crests on basal segments. Fore wing with the apex rounded, the termen evenly curved and not crenulate; the inner margin somewhat lobed before middle; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; abnormally with 9 and 10 anastomosing with 8; 11 from cell. Hind wing with veins 3, 4 from angle of cell, rarely stalked; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing without transverse lines.
  a. Fore wing uniform silvery white ..... *argentata.*
  b. Fore wing whitish suffused with brown and with dark shade below costal area ..... *longiplaga.*

B. Fore wing with transverse lines.
  a. Fore wing without fiery red patch on postmedial area below costa.
    a^1. Fore wing without chocolate-brown cornucopia-shaped patch on terminal area.
      a^2. Fore wing without chocolate-brown postmedial patch from costa to submedian fold.
        a^3. Fore wing with silvery white patch on basal half from costa to vein 1 conjoined beyond the cell to a postmedial band..... ..... *argyroplaga.*
        b^3. Fore wing without silvery white basal patch conjoined to a postmedial band.
          a^4. Fore wing with the whole cell silvery white *concha.*

b^4. Fore wing with more or less brown in cell.
a^5. Fore wing with more or less violaceous white suffusion.
a^6. Fore wing without triangular white patch on costa beyond the postmedial line.
a^7. Hind wing pure white with terminal fuscous brown band ..... *gloriosa.*
b^7. Hind wing more or less tinged with brown.
a^8. Fore wing with dark patches defined by white in and below end of cell.
a^9. Fore wing with the white markings distinct and without a uniform silvery gloss..... *superba.*
b^9. Fore wing with a uniform silvery gloss except on inner basal area, the white markings indistinct... *argentea.*
b^8. Fore wing with diffused oblique dark band from discal fold in end of cell to inner margin..... *triangularis.*
a^8. Fore wing without medial dark patches or band.
a^9. Fore wing with the orbicular present and defined by white... *cuprea.*
b^9. Fore wing with the orbicular absent ..... *agrapha.*
b^6. Fore wing with triangular white patch on costa beyond postmedial line.
a^7. Fore wing with white spot on outer edge of postmedial line at vein 2 ... *anchorita.*
b^7. Fore wing without white spot on outer edge of postmedial line at vein 2 ... *goodi.*
b^5. Fore wing without violaceous white suffusion.
a^6. Fore wing with oblique elliptical discoidal spot with pale annulus..... *aræogramma.*
b^6. Fore wing without discoidal spot..... *convergens.*
b^2. Fore wing with chocolate-brown postmedial patch from costa to submedian fold ..... *ædiplaga.*
b^1. Fore wing with chocolate-brown cornucopia-shaped patch on terminal area.
a^2. Fore wing with the lower extremity of the cornucopia-shaped patch ending on vein 1 .... *cœlisigna.*
b^2. Fore wing with the lower extremity of the cornucopia-shaped patch extending to inner margin... *cornucopia.*
b. Fore wing with fiery-red patch on postmedial area below costa..... *picta.*

7022. **Vestermannia argentata.** (Plate CLXXXIX. fig. 28.)

Westermannia argentata, Butl. Trans. Ent. Soc. 1886, p. 396.

Head and thorax pure white; fore femora above and tibiæ at sides brownish; abdomen white dorsally slightly tinged with brown. Fore wing uniform silvery white. Hind wing semi-hyaline white tinged with brown especially on the veins and terminal area. Underside of fore wing suffused with brown, the costa brownish white.

Hab. Queensland, Peak Downs, 1 ♂ type; N. Australia, Port Darwin (*Buckland*), 1 ♀. *Exp.* 36 millim.

7023. **Vestermannia longiplaga.** (Plate CLXXXIX. fig. 29.)

Westermannia longiplaga, Beth.-Baker, Nov. Zool. xiii. p. 218 (1906).

♂. Head and thorax whitish; palpi black behind; thorax above and vertex of head with paired fuscous brown spots; tegulæ fuscous brown at tips; prothorax with large fuscous brown patch; pectus and legs white, the tarsi brownish ringed with white; abdomen whitish suffused with fuscous brown, the ventral surface pure white to near extremity. Fore wing whitish tinged with cupreous brown and irrorated with brown, the costal area white with a diffused fuscous brown fascia below it curving upwards to apex; an oblique series of whitish marks from costa just before apex, very indistinct except on inner area; a subterminal series of slight white spots irrorated with black. Hind wing white tinged with brown, the veins and terminal area suffused with brown; the underside white, the terminal area suffused with brown.

Hab. Dutch N. Guinea, Fak-fak (*Pratt*), 1 ♂; Br. N. Guinea, Dinawa (*Pratt*), type † ♂ in Coll. Bethune-Baker. *Exp.* 50 millim.

7024. **Vestermannia argyroplaga.** (Plate CLXXXIX. fig. 30.)

Westermannia argyroplaga, Hmpsn. A. M. N. H. (7) xvi. p. 589 (1905).

Head and tegulæ white, palpi above and antennæ rufous, the tegulæ with some rufous scales at edges; thorax white suffused with rufous; pectus and legs pale rufous; abdomen white tinged with rufous. Fore wing pale rufous with some darker rufous irroration; a large oblique quadrate silvery white patch extending on costa from base to near middle, and down to vein 1, below the end of cell confluent with a broad curved silvery white band from costa beyond middle extending down to submedian fold and emitting a short spur inwards below costa, its outer edge slightly indented at discal fold; traces of a dark rufous subterminal line, incurved at submedian fold; a fine dark terminal line. Hind wing white. Underside of fore wing whitish suffused with fuscous except inner and terminal areas.

Hab. Uganda, Marengi (*Christy*), 1 ♂ type, Gondokoro (*W. L. Sclater*), 1 ♀. *Exp.* 28 millim.

7025. **Vestermannia concha.** (Plate CLXXXIX. fig. 31.)

Westermannia concha, Butl. Trans. Ent. Soc. 1886, p. 396.

Head silvery white; the frons with faint fuscous bar above; antennæ brown except towards base; thorax rufous; pectus and legs white with a faint brownish tinge, the fore femora and tibiæ brown on inner side; abdomen brownish, the ventral surface white. Fore wing silvery white to the postmedial line, irrorated with brown towards costa and the area below vein 1 purplish grey; a

conical chocolate-brown patch at middle of submedian interspace with purplish grey beyond it, before the very indistinct oblique dark postmedial line; the terminal area chocolate-brown with some greyish suffusion towards termen and traces of a curved dark subterminal line; cilia pale brownish. Hind wing white tinged with red-brown, the terminal area suffused with dark brown from apex to submedian fold; cilia pale brownish, white at tips.

Hab. Queensland, Peak Downs, 1 ♂ type, Townsville (*Dodd*), 1 ♂, 1 ♀. *Exp.* 24-26 millim.

7026. **Vestermannia gloriosa**, n. sp. (Plate CLXXXIX. fig. 32.)

Head white; palpi black behind, the extremity of 2nd joint and the 3rd joint irrorated with black; frons with black bars above and between antennæ, which are brownish except at base; thorax white tinged with rufous and with some fuscous at tips of tegulæ and on pro- and metathorax; pectus and legs white, the latter irrorated with fuscous, the fore femora and tibiæ fuscous on inner side; abdomen white tinged with fuscous dorsally and at extremity, the crests pale rufous, the crest on 3rd segment blackish. Fore wing cupreous brown with a purplish tinge, suffused with silvery white to the postmedial line, the area below vein 1 pale rufous slightly irrorated with black to the postmedial line; a large elliptical patch of the ground-colour defined by white in and beyond end of cell, bisected by a fine oblique white discoidal line and only separated from a similar but more rounded patch below the cell by a white streak on median nervure; postmedial line white, oblique from costa to vein 6, excurved to vein 5, then inwardly oblique, angled outwards at submedian fold, then incurved, some purplish white suffusion beyond it from costa to vein 4 with slight triangular marks defined by white on its outer edge from below costa to vein 5; the submedian fold and vein 1 slightly streaked with white from the postmedial line to the faint curved subterminal line; a terminal series of black points. Hind wing pure white, the veins towards termen slightly streaked with brown; a cupreous brown terminal band narrowing below vein 2; cilia white at tips.

Hab. Br. N. Guinea, Babooni (*Pratt*), 1 ♂, Ekeikei (*Pratt*), 4 ♂, 1 ♀ type. *Exp.* 42–46 millim.

7027. **Vestermannia superba.**

Westermannia superba, Hübn. Zütr. Ex. Schmett. p. 23. ff. 323, 324 (1823); Moore, Lep. Ceyl. iii. p. 80, pl. 154. ff. 1, 1*a*; Hmpsn. Moths Ind. ii. p. 359.
Plusiodes westermannii, Guen. Noct. ii. p. 386 (1852).

Head pure white; palpi black behind; antennæ brownish except towards base; thorax creamy white; fore femora and tibiæ brown on inner side, the tarsi brown ringed with white; abdomen white, dorsally tinged with brown. Fore wing purplish white with the area below vein 1 creamy white to the postmedial line, the terminal

area red-brown; a conical red-brown patch in end of cell defined by white and separated by a white discoidal line from a semicircular spot beyond the cell, and by a streak on median nervure from a conical patch below the cell, a black point on the lower edge of the spot beyond the cell; postmedial line fine, white, oblique from costa to vein 6, inwardly oblique from vein 5 to 2 below which it is angled outwards, then incurved, slight purplish white suffusion beyond it from costa to vein 5; a very indistinct whitish subterminal line defined on outer side by slight blackish marks at middle, incurved below costa, then minutely waved and angled

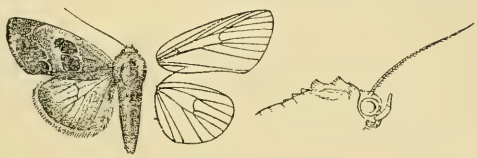


Fig. 244.—*Vestermannia superba*, ♂. ½.

inwards in submedian fold; a terminal series of blackish points. Hind wing semihyaline white tinged with brown, the veins and terminal area suffused with brown; the underside brownish white with terminal brown band from vein 7 to submedian fold.

Hab. "India," 1 ♂, 1 ♀; Sikhim (*Fotheringham*), 1 ♀; Bombay, Kanara, 1 ♂; Madras, Nilgiris (*Hampson*), 1 ♀; Travancore, Pirmád (*Imray*), 1 ♀; Ceylon (*Lindesay*), 1 ♂, 1 ♀; Andamans, 1 ♀; Singapore (*Ridley*), 1 ♀; Borneo, Sarawak (*Wallace*), 1 ♂; Java. *Exp.* 34–40 millim.

Larva. Pale olive-green thickly spotted with yellow; a yellow dorsal line; sides of head with small red streaks. Food-plant: *Terminalia.*

7028. Vestermannia argentea.

Westermannia argentea, Hmpsn. Ill. Het. B.M. viii. p. 80, pl. 146. f. 19 (1891); id. Moths Ind. ii. p. 359.

Head purple-white, the palpi black behind and brownish at extremity of 2nd joint; frons with blackish lateral bars; abdomen blackish except towards base; tegulæ and patagia creamy white, the former with diffused red-brown band; dorsum of thorax fuscous brown, the metathorax white; pectus and legs white, the fore femora above and tibiæ on inner side fuscous; abdomen white dorsally suffused with fuscous brown. Fore wing brilliant silvery brown, faintly suffused with purplish white to the postmedial line leaving a large elliptical patch of the ground-colour faintly defined by white in and beyond end of cell and only separated from an oblique patch on inner area by a slight white streak on median nervure; the area below vein 1 pure white to the postmedial line, which is slight, white, oblique from costa to vein 5, then inwardly

oblique. Hind wing semihyaline white tinged with brown especially on the veins and terminal area; the underside white with terminal brown band between veins 7 and 2.

Hab. Bombay, Kanara, Karwar (*T. R. Bell*), 1 ♂; Madras, Nilgiris (*Hampson*), 1 ♀ type; Travancore, Pirmád (*Imray*), 4 ♀; Nicobars (*Rogers*), 1 ♀; Singapore (*Ridley*), 1 ♂, 2 ♀. *Exp.* 42–46 millim.

7029. Vestermannia triangularis. (Plate CXC. fig. 1.)

Westermannia triangularis, Moore, P. Z. S. 1877, p. 605; Hmpsn. Moths Ind. ii. p. 359.

Head and thorax white, the tegulæ and prothorax suffused with rufous and with dark patches at tips of tegulæ and base of patagia; palpi black behind and at tips; frons with blackish bar above; antennæ blackish except at base; pectus and legs brownish white, the fore femora and tibiæ brown on inner side, the tarsi brown ringed with white; abdomen grey-brown, the ventral surface white. Fore wing silvery white with a faint olive tinge to the postmedial line; some fuscous suffusion in and below the cell from base to an oblique fuscous brown medial band from cell to inner margin; the terminal area chocolate-brown with the faint dark postmedial line defined on inner side by fuscous brown on its inner edge, excurved from costa to vein 3, then incurved; traces of a subterminal line defined on outer side by purple-white irroration, incurved below costa, at discal fold and below vein 3; a terminal series of purple-white striæ; cilia fuscous brown. Hind wing whitish suffused with fuscous brown especially towards termen; cilia white at tips; the underside white except the terminal area from costa to submedian fold, a slight dark discoidal lunule.

Hab. Sikhim (*Möller*), 1 ♀; Assam; Travancore, Pirmád (*Imray*), 2 ♂, 2 ♀; Andamans, 1 ♀ type. *Exp.* 34–40 millim.

7030. Vestermannia cuprea. (Plate CXC. fig. 2.)

Westermannia cuprea, Hmpsn. A. M. N. H. (7) xvi. p. 588 (1905).

♂. Head, thorax, and abdomen white slightly tinged with brown; palpi blackish at sides. Fore wing golden cupreous, the inner area white slightly tinged with brown from base of costa to inner margin near tornus which is greyish; the costal area, the cell before antemedial line, and the area beyond the cell to postmedial line down to vein 2 suffused with blue-grey; the veins slightly streaked with white, more prominently on postmedial area from costa to vein 6; an oblique loop-shaped subbasal mark defined by a fine white line from subcostal nervure to the inner white area; antemedial line fine, white, inwardly oblique and incurved from below costa to the white area; orbicular and reniform finely defined by white, the former somewhat elongate elliptical, the latter with its lower part defined by grey, with white point on its inner

lower edge and small elliptical spot on its outer; postmedial line white, oblique from costa to vein 7 where it is acutely angled outwards, then incurved to vein 3 where it is less acutely angled and again incurved to inner margin ; a subterminal series of small black spots with fine oblique slightly waved white line on their outer edge from costa to vein 7 ; the white streaks on veins 7, 6 meeting at termen in an acute angle in the interspace. Hind wing pale brown.

Hab. Gold Coast, Ashanti, Obuassi (*Bergmann*), 1 ♂ type ; Boonso (*Dudgeon*), 1 ♂. *Exp.* 32 millim.

7031. **Vestermannia agrapha.** (Plate CXC. fig. 3.)

Westermannia agrapha, Hmpsn. A. M. N. H. (7) xvi. p. 589 (1905).

♀. Head, thorax, and abdomen pale rufous ; palpi in front pectus, legs, and ventral surface of abdomen whitish. Fore wing pale rufous ; a fine white streak from base of costa along vein 1 to tornus, emitting a slight streak along median nervure to the slight very oblique white antemedial line, the angle between these lines tinged with grey; a rather triangular cupreous discoidal spot defined by a fine whitish annulus ; postmedial line indistinct, fine, whitish, oblique from costa to vein 6 and below vein 4 bent inwards to below end of cell, then erect to inner margin ; terminal area suffused with golden cupreous ; a white subterminal point on costa. Hind wing pale rufous, the underside whitish.

Hab. Sierra Leone (*Foxcroft*), 1 ♀ type. *Exp.* 26 millim.

7032. **Vestermannia anchorita.** (Plate CXC. fig. 4.)

Westermannia anchorita, Holl. Psyche, vi. p. 566, pl. 21. f. 3 (1893).
Westermannia leucogonia, Hmpsn. A. M. N. H. (7) xvi. p. 589 (1905).

♀. Head, thorax, and abdomen pale rufous. Fore wing pale rufous with slight dark irroration ; an oblique white subbasal line from costa to submedian fold with a small round rufous spot defined by a fine white annulus beyond it in cell ; the area to antemedial line suffused with grey-white from costa to submedian fold ; antemedial line white, extremely oblique from costa to median nervure near lower angle of cell, then incurved to vein 1 where it meets the postmedial line and terminates ; a pear-shaped rufous discoidal spot defined by a fine white annulus, some grey suffusion beyond upper and lower angles of cell, the veins from lower angle streaked with white; postmedial line white, very oblique from costa to vein 7, oblique below vein 3 to vein 1 where it terminates curving round to join the antemedial line, a triangular white patch beyond it from costa to vein 7, then slightly defined by grey on outer side and below vein 3 by white ; a somewhat irregular subterminal series of slight blackish spots ; a fine pale line at base of cilia. Hind wing pale rufous, the costal area paler ; the underside whitish with slight brown discoidal spot.

The type of *leucogonia* has the areole of fore wing reduced and vein 8 anastomosing with 7, 8; hind wing with veins 3, 4 stalked.

Hab. S. Nigeria, Old Calabar (*Crompton*), 1 ♀ type *leucogonia*; Gaboon, Ogové R., type † in Coll. Holland. *Exp.* 30 millim.

7033. Vestermannia goodi. (Plate CXC. fig. 5.)

Westermannia goodi, Holl. ined.

♀. Head, thorax, and abdomen grey-brown; pectus, hind legs, and ventral surface of abdomen whitish, the tarsi brown ringed with white. Fore wing deep chocolate-brown, the inner and terminal areas red-brown, the chocolate basal area suffused with bluish white; a white striga from costa near base; a round chocolate subbasal spot in cell defined by bluish white; antemedial line slight, bluish white, oblique from costa to just below the cell and ending at submedian fold where it curves round and joins the postmedial line; a large round chocolate discoidal spot slightly defined by bluish white; a triangular postmedial white patch on costa with the white postmedial line defined on outer side by bluish fuscous arising from it, obliquely curved and joining the antemedial line in submedian fold; a slight maculate sinuous dark subterminal line with series of white points on its inner edge; a fine pale line at base of cilia. Hind wing dark reddish brown with a fine pale line at base of cilia; the underside greyish suffused with brown.

Hab. S. Nigeria (*Farquhar*), 1 ♀; Gaboon, Bule Country (*Good*), type † ♀ in Coll. Holland. *Exp.* 36 millim.

7034. Vestermannia aræogramma. (Plate CXC. fig. 6.)

Westermannia aræogramma, Hmpsn. A. M. N. H. (7) xvi. p. 590 (1905).

♀. Head, thorax, and abdomen whitish suffused with rufous. Fore wing pale rufous irrorated with darker rufous; an indistinct double oblique line from costa before middle to inner margin beyond middle; an indistinct, rather large, oblique elleptical discoidal spot defined by a slight pale annulus, with some slight dark suffusion beyond its lower extremity; an indistinct double postmedial line excurved from costa to vein 3, then bent inwards to below end of cell, and almost meeting the antemedial line at inner margin; a slight pale line at base of cilia. Hind wing white faintly tinged with rufous. Underside of fore wing whitish slightly tinged with rufous.

Hab. Br. C. Africa, Chiromo (*de Jersey*), 1 ♀ type. *Exp.* 26 millim.

7035. Vestermannia convergens. (Plate CXC. fig. 7.)

Westermannia convergens, Hmpsn. Ann. S. Afr. Mus. ii. p. 315 (1902).

♂. Head and thorax rufous mixed with greyish and with a few dark scales; palpi grey mixed with rufous; pectus and legs whitish

tinged with rufous, the fore tibiæ tinged with fuscous; abdomen brownish white irrorated with fuscous. Fore wing chocolate-brown tinged with grey and sparsely irrorated with black; an oblique whitish line from costa near base to middle of inner margin; postmedial line whitish, oblique from costa to vein 6, excurved to vein 4, then oblique to inner margin close to the antemedial line, a yellowish white patch tinged with rufous beyond it on costa extending to apex. Hind wing white tinged with yellow.

♀. Fore wing with the area before the antemedial line much paler; hind wing suffused with fuscous, the cilia yellowish white

Hab. Cape Colony, Annshaw (*Miss F. Barrett*), 1 ♂, 1 ♀ type. *Exp.* ♂ 30, ♀ 32 millim.

7036. Vestermannia œdiplaga.

Westermannia œdiplaga, Hmpsn. P. Z. S. 1910, p. 415, pl. xxxvi. f. 27.

♀. Head, thorax, and abdomen ochreous grey irrorated with brown; palpi with the 2nd joint fuscous at sides; fore tibiæ and the tarsi fuscous, the latter with slight pale rings. Fore wing ochreous grey irrorated with brown, the terminal area suffused with rufous except at tornus, the costal edge pale; a large chocolate-brown patch tinged with violaceous grey from costa beyond middle to submedian fold where it ends in a point, its inner edge incurved, it outer strongly excurved and bounded by the fine dark postmedial line slightly defined by whitish on outer side, angled inwards just above submedian fold and excurved to inner margin near tornus; traces of a punctiform dark subterminal line excurved below vein 7; cilia dark brown, white at tips. Hind wing pale suffused with reddish brown, the cilia brown with yellowish line at base and whitish tips; the underside yellowish irrorated with brown, a curved postmedial line.

Hab. N.E. Rhodesia, Luangwa R (*Neave*), 1 ♀ type. *Exp.* 36 millim.

7037. Vestermannia cœlisigna. (Plate CXC. fig. 8.)

Westermannia cœlisigna, Hmpsn. Trans. Ent. Soc. 1895, p. 303; id. Moths Ind. iv. p. 522.

Head and thorax grey tinged with brown and irrorated with a few black scales; fore tarsi brown ringed with white; abdomen grey tinged with brown. Fore wing grey-white tinged with brown and sparsely irrorated with black; a large chocolate-brown patch from termen, on which it extends from apex to submedian fold, to vein 1 just beyond middle, suffused with grey on costal area; a discoidal bar dark above, pale rufous at middle and defined by white, constricted at middle, some blue-grey suffusion beyond it and sometimes a small white spot below it; a fine white postmedial line, angled outwards below costa, slightly incurved at discal fold and not extending below the dark patch; a rather diffused dark

subterminal line, excurved below vein 7 and at middle and incurved at discal fold and below vein 3; a series of black points just before termen and more prominent spot at submedian fold; cilia chocolate-brown beyond the patch. Hind wing whitish tinged with brown, the veins and terminal area suffused with brown; cilia white with a brownish line through them; the underside white, the costal and terminal areas slightly irrorated with brown.

Ab. 1. Fore wing with the discoidal bar almost obsolete.—Louisiades.

Hab. Sikhim (*Pilcher*), 1 ♂; Bhután (*Dudgeon*), 1 ♀ type; Ceylon, Haldamulla (*Mackwood*), 1 ♀; Louisiades, St. Aignan (*Meek*), 1 ♂. *Exp.* 30–32 millim.

7038. Vestermannia cornucopia.

Ingura cornucopia, Hmpsn. Ill. Het. B.M. viii. p. 61, pl. 141. f. 12 (1891); id. Moths Ind. ii. p. 359.

Head and thorax grey tinged with red-brown and irrorated with a few black scales; tarsi brown ringed with white; abdomen grey suffused with brown. Fore wing grey suffused with red-brown and sparsely irrorated with black; a large chocolate-brown patch edged with whitish from termen, on which it extends from apex to submedian fold, to middle of inner margin; the extremity of median nervure and bases of veins 4, 3 on the patch streaked with blue-grey; a narrow discoidal bar edged with whitish and with blue-grey suffusion beyond it, sometimes with a small fiery-red or whitish spot below it; a fine postmedial white line across the patch, incurved to vein 4, then excurved; a subterminal series of faint minute blackish spots, incurved below vein 3; a series of minute black points just before termen; cilia chocolate-red beyond the patch. Hind wing brown, the interspaces of basal half sometimes whitish in male; the underside whitish tinged with brown, the terminal area suffused with brown between veins 7 and 2.

Hab. Madras, Nilgiris (*Hampson*), 1 ♀ type; Travancore, Pirmád (*Imray*), 1 ♂, 2 ♀; Dutch N. Guinea, Fak-fak (*Pratt*), 1 ♂. *Exp.* 28–34 millim.

7039. Vestermannia picta.

Calymera picta, Moore, Lep. Atk. p. 104, pl. iv. f. 7 (1882); Hmpsn. Moths Ind. ii. p. 357.

♀. Head fuscous black; palpi whitish in front, brown behind and at tips; antennæ brown; thorax brownish white irrorated with black, the tegulæ and prothorax with large fuscous black patches; pectus and legs white tinged with brown; abdomen grey-brown, the ventral surface whitish. Fore wing whitish tinged with brown and irrorated with purplish fuscous; antemedial line indistinct, dark, oblique towards costa, then minutely waved, a rounded patch beyond it on inner area, black-brown on inner side, fiery red on

outer and with a slight red line from its upper edge to subcostal nervure; the medial area suffused with purple and with a fiery-red fascia just below costa and a more wedge-shaped fascia below vein 7; postmedial line represented from costa to vein 3 by the obliquely excurved black-brown outer edge of this medial area, the line then double and minutely waved; a triangular white patch beyond the postmedial line from costa to vein 5; a subterminal series of black-brown spots defined by white; the termen brown except towards tornus; cilia pale brown with a fine white line at base. Hind wing fuscous brown; the cilia brownish white. Underside of fore wing fuscous brown, the costal and terminal areas dull blood-red; hind wing whitish suffused with fuscous beyond the cell, the terminal area with blood-red from apex to vein 3.

Hab. Sikhim; Assam, Khásis, 1 ♀. *Exp.* 36 millim.

Genus **PLAGIOGRAPTA.**

Plagiograpta, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 657 (1907) ..... Type. *macrodonta*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and slenderly scaled, the 3rd very long; frons smooth; eyes large, round; antennæ of male almost simple; thorax clothed almost entirely with scales and without crests, the tegulæ forming a raised hood; tibiæ slightly fringed with hair; abdomen with dorsal crest at base only, long, especially in male. Fore wing narrow and elongate, the apex rounded, the termen evenly curved and not crenulate, the inner margin with lobe and slight scale-tooth before middle; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 strongly stalked; 5 fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

7040. Plagiograpta macrodonta.

Plagiograpta macrodonta, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 657 (1907).

Head and tegulæ white, the latter with dorsal brown streak; palpi on outer side and antennæ brown; thorax grey-brown; pectus whitish, the tarsi ringed with white; abdomen grey-brown. Fore

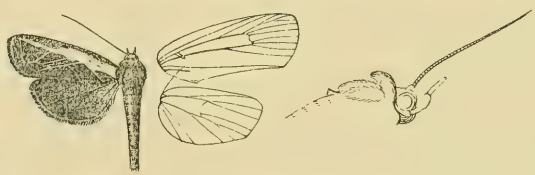


Fig. 245.—*Plagiograpta macrodonta*, ♂. ¾.

wing grey-brown; a white fascia through the cell from base to the subterminal line just below apex, broad and edged by dark brown towards base, then forming a narrow streak; a white streak from

inner margin near base curving upwards to the fascia, then downwards to tornus, an oblique white medial line from it to inner margin; an oblique white-defined tooth from the fascia just beyond the cell to the subterminal line at vein 3, its outer edge connected by an oblique white streak with the costa at middle; subterminal line white, straight to vein 3, then angled inwards to the curved streak; the veins of terminal area with slight dark streaks; a fine white terminal line. Hind wing greyish brown.

Hab. Bombay, Kanara, Malmani (*T. R. Bell*), 1 ♂, 1 ♀ type, Karwar (*Bell*), 2 ♂, 1 ♀. *Exp.* 26 millim.

The larva forms a boat-shaped cocoon.

Genus **NERTOBRIGA**.

	Type.
Nertobriga, Wlk. Journ. Linn. Soc., Zool. vii. p. 75 (1864)	*signata.*
Doranaga, Moore, Lep. Ceyl. iii. p. 553 (1887)	*signata.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about vertex of head and slenderly scaled, the 3rd rather long; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen with large crests on four basal segments. Fore wing with the apex rounded, the termen evenly curved and not crenulate, the inner margin highly arched; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the postmedial line distinct and oblique from below apex to middle of inner margin.
  a. Fore wing with the postmedial line arising from apex, below which it is excurved ..... *signata.*
  b. Fore wing with the postmedial line angled outwards at vein 6, then slightly waved ..... *soliera.*
B. Fore wing with the postmedial line hardly traceable and excurved.
  a. Fore wing with oblique postmedial dark shade from costa ..... *stramina.*
  b. Fore wing without postmedial dark shade from costa ... *abbreviata.*

7041. Nertobriga signata.

Ariolica signata, Wlk. Journ. Linn. Soc., Zool. vii. p. 54 (1864).
Nertobriga reversa, Wlk. Journ. Linn. Soc., Zool. vii. p. 75 (1864).
Ariolica leucospila, Wlk. xxxiii. 788 (1865); Hmpsn. Moths Ind. ii. p. 362.
Doranaga apicalis, Moore, Lep. Ceyl. iii. p. 553, pl. 214. f. 7 (1887).

Head and thorax red-brown with a slight purplish-grey tinge; palpi in front and frons whitish; pectus and legs whitish tinged with brown; the fore tarsi fuscous ringed with white; abdomen pale brown, the crests darker at tips, the ventral surface whitish. Fore wing red-brown tinged with purplish grey; antemedial line dark, slightly angled outwards below costa, then sinuous; a black point at upper angle of cell and white point at lower angle; a pure white conical patch defined by black on costa just before apex;

postmedial line dark, arising from apex, excurved below apex, then oblique; subterminal line formed of black scales, more or less complete, arising from postmedial line at vein 6, waved, excurved at middle; a terminal series of black points. Hind wing fuscous brown, the cilia brownish white; the underside greyish, the terminal area more or less suffused with fuscous, a diffused curved postmedial line sometimes present.

Fig. 246.—*Nertobriga signata*, ♂. ½,

Ab. 1. Fore wing with some white on each side of subterminal line.

Ab. 2. Fore wing with the discal area suffused with purplish black.

Ab. 3. Fore wing with the white patch on costa suffused with fuscous brown.

Hab. N.E. India (*Grote*), 1 ♂; Ceylon (*Mackwood*), 1 ♂, 2 ♀, type *apicalis*; Singapore (*Ridley*), 2 ♂, 2 ♀; Borneo, Sarawak (*Wallace*), 1 ♂, Bidi (*Shelford*), 1 ♂, Sandakan (*Pryer*), 1 ♂, 1 ♀; Philippines, Basilan (*Doherty*), 1 ♀; Dutch N. Guinea, Kapaur (*Doherty*), 2 ♂; Br. N. Guinea, Milne Bay (*Meek*), 2 ♂; D'Entrecasteaux Is., Fergusson Is. (*Meek*), 2 ♂; Queensland, Kuranda (*Dodd*), 1 ♀. *Exp.* 24–28 millim. Type † and types † *reversa* and *leucospila* in Mus. Oxon.

7042. **Nertobriga soliera.** (Plate CXC. fig. 9.)

Doranaga soliera, Swinh. A. M. N. H. (6) xv. p. 7 (1895); Hmpsn. Moths Ind. iv. p. 523.

Head blackish with some white scales; thorax ochreous white tinged with rufous, especially the tegulæ; pectus, legs, and abdomen white suffused with brown, the tarsi black ringed with white. Fore wing deep rufous, the basal area except at costa ochreous white tinged with rufous; antemedial points formed of black scales in cell, two in submedian fold, and one below vein 1; a black point at upper angle of cell and white point with some black scales round it at lower angle; postmedial line white and oblique from costa to vein 6, then indistinct, rufous, minutely waved and oblique to middle of inner margin, some white irroration beyond it at apex; subterminal line only defined by more or less white suffusion before and beyond it. Hind wing ochreous whitish suffused with brown, especially on terminal area; cilia ochreous; the underside ochreous

white slightly irrorated with brown, a diffused curved postmedial band and traces of subterminal band.

Hab. Sikhim (*Möller*), 3 ♀ ; Assam, Khásis, 2 ♂ type. *Exp.* ♂ 24, ♀ 28 millim.

7043. Nertobriga straminea.

Doranaga straminea, Hmpsn. Ill. Het. B.M. viii. p. 92, pl. 147. f. 17 (1891); id. Moths Ind. ii. p. 362.

♀. Head blackish; palpi pale brownish in front; thorax and abdomen pale brownish ochreous; fore tarsi fuscous with pale rings. Fore wing pale brownish ochreous; an oblique dark shade from costa beyond middle to vein 6, with pale patch beyond it; the terminal area tinged with fuscous. Hind wing ochreous white suffused with brown, except on costal area; cilia ochreous white; the underside pale brownish ochreous.

Hab. Madras, Nilgiris (*Hampson*), 1 ♀ type. *Exp.* 24 millim.

*7044. Nertobriga abbreviata. (Plate CXC. fig. 10.)

Leucania abbreviata, Wlk. Journ. Linn. Soc., Zool. vi. p. 180 (1862); Swinh. Cat. Het. Mus. Oxon. ii. p. 74.

♂. Head, thorax, and abdomen ochreous white tinged with rufous. Fore wing ochreous white suffused with rufous; traces of a curved rufous antemedial line; reniform represented by faint rufous bars at sides; postmedial line indistinct, rufous, from costa to discal fold, excurved below costa; subterminal line represented by a series of slight fuscous marks from discal fold to inner margin; cilia fuscous at tips. Hind wing whitish suffused with brownish rufous; cilia whitish; the underside white tinged with brown.

Hab. Borneo, Sarawak (*Wallace*), type† ♂ in Mus. Oxon. *Exp.* 24 millim.

Genus **TROGOBRIGA**, nov.

Type, *T. albifera*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about vertex of head and slenderly scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of female ciliated; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen with dorsal crests on three basal segments. Fore wing with the apex produced and acute, the termen excised below apex and angled outwards at vein 3, then oblique, a small scale-tooth at tornus; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

7045. Trogobriga albifera, n. sp.

♀. Head, thorax, and abdomen fuscous brown; pectus and ventral surface of abdomen white; anal tuft ochreous. Fore wing fuscous brown; a slight dentate black subbasal line from costa to submedian fold; antemedial line black, waved to median nervure,

then strongly angled inwards below the cell and outwards at submedian fold, then bent inwards to inner margin; a small postmedial semicircular black mark on costa with some white scales in it; postmedial line black, arising at vein 6, strongly angled inwards at

Fig. 247.—*Trogobriga albifera*, ♀. ½.

discal fold and outwards at vein 4, then oblique and angled inwards in submedian fold and outwards above inner margin; a white patch tinged with brown and defined by blackish on costa towards apex, with two minute black streaks on costa and its edges indented below costa; traces of a dark subterminal line defined on outer side by whitish from vein 3 to inner margin, angled inwards at submedian fold. Hind wing fuscous brown, the cilia greyish; the underside grey irrorated and suffused with brown, a slight discoidal spot and curved postmedial line.

Hab. UGANDA, Entebbe (*Minchin*), 1 ♀ type. *Exp.* 24 millim.

Genus **NEONEGETA**, nov.

Type, *N. trigonica*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and slenderly scaled, the 3rd long; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen with dorsal crests on two basal segments, long in male. Fore wing with the apex rectangular, the termen evenly curved and not crenulate, the inner margin with slight lobe and scale-tooth before middle; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the basal area pale yellow defined by an obliquely curved silvery line, the terminal area dark chocolate-brown ..... *xanthobasis.*

B. Fore wing with the basal area and a postmedial band creamy white, the medial and terminal areas black-brown.

a. Fore wing with the medial black band erect and rather dilated at middle ..... *atriflava.*

b. Fore wing with the medial black band oblique and wedge-shaped.

a[1]. Hind wing of male whitish, the terminal area suffused with brown ..... *zelia.*

b[1] Hind wing uniform fuscous brown..... *purpurea.*

c. Fore wing with black-brown triangular patch from antemedial part of costa to middle of inner margin defined by violaceous white suffusion before and beyond it ..... *trigonica.*

D. Fore wing uniform pale violaceous grey-brown ..... *pollusca.*

7046. **Neonegeta xanthobasis.** (Plate CXC. fig. 11.)

Ariola xanthobasis, Hmpsn. A. M. N. H. (7) xvi. p. 601 (1905).

♂. Head and thorax pale yellow; palpi, tegulæ, except at middle, and metathorax tinged with rufous; pectus whitish, legs mostly dark brown; abdomen fuscous brown, ochreous at base, the claspers large, white at sides, the ventral surface white. Fore wing with the basal area pale yellow bounded by a curved, rather diffused brilliant silver line from costa before middle to middle of inner margin, the costa tinged with rufous; the rest of wing uniform very deep chocolate-brown. Hind wing uniform fuscous brown; the underside pale, the costal and terminal areas broadly suffused with fuscous, leaving a diffused whitish patch on costal area before apex.

♀. Pectus and legs more ochreous; hind wing with a slight rufous tinge.

Hab. S. Nigeria, Akassa (*Lugard*), 1 ♂ type, Sapele (*Sampson*), 1 ♀. *Exp.* 24 millim.

7047. **Neonegeta atriflava**, n. sp. (Plate CXC. fig. 12.)

♂. Head and thorax ochreous white; palpi and antennæ, except basal joint, fuscous; tegulæ and a patch on metathorax greenish black; fore tibiæ and tarsi fuscous, the mid and hind tibiæ tinged with fuscous at base; abdomen fuscous with the basal crest and ventral surface ochreous white. Fore wing white tinged with ochreous yellow; a triangular greenish-black patch at base of costa and some fuscous on inner margin near base; a broad greenish-black medial band, its inner edge incurved at middle, its outer edge slightly excurved; a broad terminal black-brown band with a purple gloss, its inner edge incurved and narrowing to tornus; cilia with a cupreous tinge towards tornus. Hind wing ochreous white suffused with fuscous, the costal area and postmedial area to submedian fold not suffused; cilia whitish at tips; the underside ochreous white with a brownish mark below middle of costa, the terminal area suffused with brown from apex to vein 2.

Hab. Gold Coast, Kumasi (*Whiteside*), 1 ♂ type. *Exp.* 24 millim.

*7048. **Neonegeta zelia.** (Plate CXC. fig. 13.)

Acontia zelia, Druce, P. Z. S. 1887, p. 686; Holl. Psyche, vii. p. 144, pl. 1. f. 20.

♂. Head and thorax white; palpi ochreous; antennæ brown; tegulæ yellow-brown with a silvery gloss; legs tinged with brown; abdomen white tinged with ochreous except at base. Fore wing

white; a wedge-shaped brown band with a cupreous gloss from costa to middle of inner margin, its inner edge curved and extending to base of costa, its outer edge oblique; a terminal brown band with a cupreous gloss, broad at costa, narrowing to tornus, its inner edge curved. Hind wing white tinged with brown, the terminal area suffused with brown except towards tornus; the underside white, the termen tinged with brown from apex to vein 4.

♀. Hind wing entirely suffused with brown.

Hab. Gambia (*Sir G. Carter*), type † ♂ in Coll. Druce. *Exp.* 20 millim.

7049. **Neonegeta purpurea**, n. sp. (Plate CXC. fig. 14.)

Head yellowish white; palpi, lower part of frons, and antennæ brown; thorax yellowish white, the tegulæ and metathorax brown with a leaden-grey gloss; fore and mid tibiæ and tarsi tinged with brown; abdomen brown with the crests, slight segmental lines, and the ventral surface yellowish white. Fore wing black-brown with a brilliant purple gloss; the basal area yellowish white obliquely from base of costa to inner margin before middle; a yellowish white postmedial band expanding somewhat at costa and inner margin. Hind wing brown with a cupreous gloss; cilia whitish at tips. Underside of fore wing black-brown with postmedial ochreous mark on costa; hind wing brown with diffused ochreous white postmedial band from apical part of costa to lower angle of cell.

Hab. Gold Coast, Bibianaha (*Spurrell*), 1 ♀; S. Nigeria, Ilesha (*Humfrey*), 1 ♂, 4 ♀ type. *Exp.* 24 millim.

7050. **Neonegeta trigonica.**

Westermannia trigonica, Hmpsn. A. M. N. H. (7) xvi. p. 590 (1905).

♂. Head, thorax, and abdomen pale brown; palpi greyish in front, blackish at sides; pectus and legs greyish; abdomen greyish at base, the ventral surface greyish with dark patch at middle.

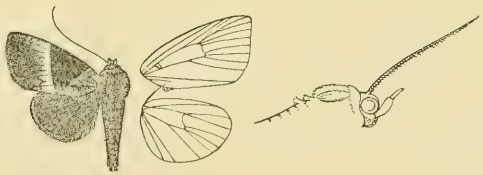


Fig. 248.—*Neonegeta trigonica*, ♂. ½.

Fore wing with the basal area whitish tinged with brown; a large triangular golden bronze patch extending on costa from near base to beyond middle, its apex at middle of inner margin, defined by

white lines, the area beyond it white shading into golden bronze on terminal area; an indistinct, rather maculate subterminal line, unusually remote from termen, angled outwards at vein 7 and inwards in discal and submedian folds and excurved at middle. Hind wing pale golden bronze. Underside of fore wing pale golden bronze with the inner area whitish.

♀. Fore wing with the basal and postmedial areas much browner.

Hab. S. Nigeria, Lagos (*Boag*), 1 ♂, Old Calabar (*Crompton*), 1 ♂ type, Akassa (*Lugard*), 1 ♂, Sapele (*Sampson*), 2 ♀. *Exp.* 28 millim.

7051. Neonegeta pollusca.

Leocyma pollusca, Schaus, Lep. Sierra Leone, p. 35, pl. 2. f. 12 (1893).

♀. Head white tinged with brown; thorax and abdomen whitish suffused with brown. Fore wing pale violaceous grey-brown; a fine straight oblique dark antemedial line; a black point at upper angle of cell and minute white spot at lower angle; postmedial line fine, dark, erect to vein 6, then oblique; a subterminal series of small obscure blackish spots; a fine white line at base of cilia. Hind wing fuscous brown; a fine white line at base of cilia; the underside whitish tinged with brown.

Hab. Sierra Leone; Gold Coast, Ajinah (*Dudgeon*), 1 ♀. *Exp.* 24 millim.

Genus METALEPTINA.

Type.
Metaleptina, Holl. Psyche, vi. p. 550 (1893) ..... *nigribasis.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately fringed with scales in front, the 3rd long; frons smooth with ridge of scales above; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests, the patagia typically with thick fringe of scales at extremity; tibiæ of male with thick fringe of hair, the hind tibiæ greatly dilated and with large tuft of long hair on inner side; abdomen with dorsal crests on basal segments, long in male. Fore wing with the apex rounded, the termen evenly curved and not crenulate; vein 3 from before angle of cell; 5 from just above angle; 6 from upper angle; 9 and 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with vein 3 from close to angle of cell; 4, 5 from angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. The patagia with thick fringe of scales at extremity; tibiæ of male with thick fringe of hair, the hind tibiæ greatly dilated and with large tuft of long hair on inner side.

A. Fore wing with the postmedial line minutely dentate ..... *microcyma.*
B. Fore wing with the postmedial line not dentate.
  a. Fore wing with the postmedial line arising from costa before apex and slightly incurved below vein 4 ..... *albibasis.*
  b. Fore wing with the postmedial line arising from apex, oblique and straight.

a^1. Fore wing two small discoidal spots with white centres, the postmedial line not defined on outer side by ochreous ..... *obliterata.*
b^1. Fore wing with black point at upper angle of cell, the postmedial line defined on outer side by ochreous ... *nigribasis.*
c^1. Fore wing with dark points at upper and lower angles of cell, the postmedial line defined on outer side by white ..... *albilinea.*

7052. **Metaleptina microcyma.** (Plate CXC. fig. 15.)

Urbona microcyma, Hmpsn. A. M. N. H. (7) xvi. p. 588 (1905).

♂. Head and thorax grey-white largely suffused with rufous or dark brown; palpi with the 2nd joint blackish above; tarsi banded with fuscous; abdomen brownish white. Fore wing whitish tinged with rufous and more or less thickly irrorated with fuscous; a black point in middle of cell and two discoidal points or small spots; an oblique minutely dentate brown line from costa near apex to middle of inner margin, sometimes slightly defined by white on outer side. Hind wing whitish tinged with brown; the underside whiter, sometimes with traces of postmedial line on costal half.

♀. Head, thorax, and fore wing much darker red-brown; abdomen fuscous; fore wing with the discoidal points conjoined into a lunule.

Hab. S. Nigeria, Akassa (*Lugard*), 1 ♂ type, Sapele (*Sampson*), 5 ♂, 3 ♀, Old Calabar (*Crompton*), 1 ♂. *Exp.* 28–32 millim.

7053. **Metaleptina albibasis.** (Plate CXC. fig. 16.)

Metaleptina albibasis, Holl. Psyche, vi. p. 551, pl. 21. f. 12 (1893).
Westermannia selenitis, Hmpsn. A. M. N. H. (7) xvi. p. 592 (1905).

♂. Head and thorax grey mixed with brown and fuscous; palpi blackish above; abdomen whitish dorsally tinged with fuscous. Fore wing pale rufous sparsely irrorated with black; traces of an oblique, slightly sinuous antemedial line; a small blackish spot in middle of cell and crescentic discoidal spot; postmedial line arising from costa towards apex, fuscous defined by whitish on outer side, slightly excurved from costa to vein 4, then slightly incurved; a fine pale line at base of cilia. Hind wing whitish uniformly tinged with pale brown; the underside rather whiter.

Hab. Gold Coast, Kumasi (*Whiteside*), 1 ♂; S. Nigeria, Sapele (*Sampson*), 1 ♂ type *selenitis*; Gaboon, Ogové R., type † in Coll. Holland. *Exp.* 30 millim.

7054. **Metaleptina obliterata.** (Plate CXC. fig. 17.)

Metaleptina obliterata, Holl. Psyche, vi. p. 551, pl. 21. f. 13 (1893).

♂. Head and thorax fuscous brown mixed with grey-white; pectus and legs white tinged with brown; abdomen ochreous white

dorsally suffused with brown. Fore wing ochreous white suffused with red-brown and irrorated with a few blackish scales ; a white patch with brown scales mixed at base of inner margin, defined by an obliquely curved dark line ; a white point defined by brown in middle of cell and two small white discoidal spots defined by brown ; an oblique straight dark brown line from apex to middle of inner margin ; cilia brown with a fine white line at base. Hind wing ochreous white tinged with brown ; the underside white.

Hab. Gold Coast, Kumasi (*Whiteside*), 1 ♂ ; Gaboon, Ogové R., type † in Coll. Holland. *Exp.* 32 millim.

7055. **Metaleptina nigribasis.**

Metaleptina nigribasis, Holl. Psyche, vi. p. 551, pl. 21. f. 11 (1893).

Head and thorax black-brown mixed with some grey ; pectus and legs creamy white, the mid tibiæ tinged with brown ; abdomen dark reddish brown mixed with some grey, the basal crest blackish, the ventral surface white. Fore wing pale red-brown slightly

Fig. 249.—*Metaleptina nigribasis*, ♂. ½.

irrorated with black ; an oblique black-brown fascia on base of inner margin ; a minute black point at upper angle of cell ; an oblique rufous line from apex to inner margin just beyond middle. Hind wing uniform fuscous brown ; the underside creamy white, a diffused curved brown postmedial line, the termen tinged with brown except at apex and tornus.

Hab. S. Nigeria, Ilesha (*Humfrey*), 1 ♂ ; Congo, Kangwe (*Good*), type † ♂ in Coll. Holland. *Exp.* 30 millim.

7056. **Metaleptina albilinea**, n. sp. (Plate CXC. fig. 18.)

♀. Head white ; palpi suffused with brown at sides ; antennæ brownish ; thorax brown mixed with white ; pectus white ; legs white suffused with brown ; abdomen white, dorsally suffused with brown. Fore wing whitish suffused with brown and irrorated with fuscous, the costal edge white ; a fuscous point in middle of cell and points at upper and lower angles ; postmedial line brown defined on outer side by white, oblique and straight from apex to inner margin beyond middle ; a fine pale line at base of cilia. Hind wing whitish suffused with brown ; a fine pale line at base of cilia ; the underside whitish tinged with brown, a diffused brown postmedial shade, obtusely angled at vein 5, then oblique.

Hab. S. Nigeria, Ilesha (*Humfrey*), 1 ♀ type. *Exp.* 34 millim.

Sect. II. The patagia and legs normal.

A. Fore wing with two small white discoidal spots.
  a. Fore wing dark purple-brown, the postmedial line oblique to vein 6, then excurved to vein 4 ..... *dileuca*.
  b. Fore wing red-brown, the postmedial line obliquely excurved from costa to vein 4..... *geminastra*.
B. Fore wing with two black discoidal points with a few white scales on them ..... *digramma*.

7057. **Metaleptina dileuca**, n. sp. (Plate CXC. fig. 19.)

♀. Head, thorax, and abdomen dark brown tinged with purplish grey, the pectus and legs greyer. Fore wing dark purple-brown, suffused with silvery blue-grey to postmedial line; antemedial line pale grey defined on outer side by black, oblique and slightly curved; a minute white spot at upper angle of cell and larger spot at lower angle; postmedial line pale grey defined on inner side by black, oblique to vein 6, excurved to vein 4, then inwardly oblique; a fine white line at base of cilia. Hind wing dark brown with a fine white line at base of cilia; the underside grey thickly irrorated with brown.

Hab. S. Nigeria, Lagos (*Boag*), 1 ♀ type. *Exp.* 26 millim.

7058. **Metaleptina geminastra.** (Plate CXC. fig. 20.)

Westermannia geminastra, Hmpsn. A. M. N. H. (7) xvi. p. 592 (1905).

♀. Head and thorax pale reddish brown; palpi whitish in front; abdomen fuscous brown. Fore wing reddish brown with a cupreous gloss; an oblique slightly sinuous brown antemedial line defined by whitish on inner side; two pure white discoidal spots, the lower rather larger and placed on a diffused paler rufous patch; postmedial line brown defined by whitish on outer side, excurved from costa to vein 4, then incurved; a fine pale line at base of cilia. Hind wing pale with a reddish gloss; a fine pale line at base of cilia; the underside whitish tinged with reddish brown.

Hab. S. Nigeria, Old Calabar (*Crompton*), 1 ♀ type. *Exp.* 24 millim.

7059. **Metaleptina digramma.**

Westermannia digramma, Hmpsn. A. M. N. H. (7) xvi. p. 592 (1905).

♂. Head and thorax pale red-brown; abdomen greyish brown,

Fig. 250.—*Metaleptina digramma*, ♂. ½.

the dorsal crests and anal tuft dark at tips, the genital tufts

whitish. Fore wing pale rufous; an oblique, straight, dark brown antemedial line; two black discoidal points with a few white scales on them; postmedial line slightly excurved from costa to vein 6, then oblique; a slight pale line at base of cilia. Hind wing brown with a silky gloss; the underside whitish slightly irrorated with brown.

Hab. NIGERIA, Old Calabar (*Crompton*), 1 ♂ type. *Exp.* 28 millim.

Genus **NEGETA**.

	Type.
Negeta, Wlk. xxiv. 1105 (Feb. 1862)	*contrariata.*
Urbona, Wlk. Journ. Linn. Soc., Zool. vi. p. 183 (Nov. 1862)	*sublineata.*
Nagasena, Moore, Lep. Atk. p. 151 (1882)	*sublineata.*
Periplusia, Holl. Psyche, vii. p. 30 (1894)	*nubilicosta.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and slenderly scaled, the 3rd long; frons smooth with ridge of scales above; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ moderately fringed with hair; abdomen with dorsal crests on two basal segments, long in male. Fore wing with the apex rounded, the termen evenly curved and not crenulate; vein 3 from well before angle of cell; 5 from just above angle; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the postmedial line absent, leaden grey with the base yellow ..... *molybdota.*
B. Fore wing with the postmedial line present.
  a. Fore wing with the postmedial line arising from the costa well before apex.
    a^1. Fore wing with the ante- and postmedial lines oblique and almost meeting at inner margin ..... *approximans.*
    b^1. Fore wing with the postmedial line bent outwards or excurved below costa.
      a^2. Fore wing with wedge-shaped chocolate-brown patch from middle of costa and semicircular patch on costa towards apex ..... *stalactitis.*
      b^2. Fore wing without chocolate-brown patches on costa.
        a^3. Fore wing grey-brown or reddish brown.
          a^4. Fore wing with two small white discoidal spots. *cinerascens.*
          b^4. Fore wing without white discoidal spots.
            a^5. Fore wing with diffused dark fascia below costal area ..... *nubilicosta.*
            b^5. Fore wing without dark fascia below costal area.
              a^6. Fore wing with the ante- and postmedial lines not closely approximated ..... *phæopepla.*
              b^6. Fore wing with the ante- and postmedial lines closely approximated except below costa, the area between them pale ..... *ochreoplaga.*
        b^3. Fore wing with the ground-colour white or whitish.
          a^4. Fore wing without dark streak through the cell.
            a^5. Fore wing without olive-yellow or green on medial area ..... *mesoleuca.*
            b^5. Fore wing with olive-yellow medial line.
              a^6. Fore wing with the basal inner area white. *luminosa.*

*b*⁶. Fore wing with the basal inner area suffused with purple-grey ... ... *albigrisea.*
*c*⁵. Fore wing with almost the whole medial area suffused with olive-green.
*a*⁶. Hind wing white, the veins of terminal area brown ... *ruficeps.*
*b*⁶. Hind wing wholly suffused with brown ... *purpurascens.*
*b*⁴. Fore wing with dark streak through the cell to the postmedial line ... *chlorocrota.*
b. Fore wing with the postmedial line arising from or from close to apex.
*a*¹. Hind wing suffused with brown.
*a*². Fore wing with the postmedial line minutely dentate ... *contrariata.*
*b*². Fore wing with the postmedial line not dentate ... *sublineata.*
*b*¹. Hind wing not suffused with brown.
*a*². Fore wing with the postmedial line not waved ... *lacteata.*
*b*². Fore wing with the postmedial line minutely waved. *nivea.*

7060. **Negeta molybdota**, n. sp. (Plate CXC. fig. 21.)

Head and thorax orange-yellow; palpi suffused with brown at sides; antennæ brown; pectus and legs ochreous white, the fore tibiæ and tarsi suffused with brown; abdomen ochreous white dorsally suffused with brown, the crests orange-yellow. Fore wing silvery purple, the costal edge yellow; an oblique yellow fascia on basal half of inner margin; two small yellow discoidal spots defined by olive. Hind wing glossy greyish fuscous; the underside ochreous white with some brownish on termen from below apex to vein 2.

Hab. Gold Coast, Kumasi (*Whiteside*), 1 ♂, 1 ♀ type. *Exp.* 24 millim.

7061. **Negeta approximans**, n. sp. (Plate CXC. fig. 22.)

♀. Head, thorax, and abdomen grey-brown. Fore wing glossy grey-brown, the medial area redder brown; antemedial line white defined on outer side by blackish, oblique and almost straight: minute blackish points at angles of cell; postmedial line white very slightly defined on inner side by blackish, rather oblique and almost straight to inner margin near the antemedial line; a subterminal series of faint blackish marks, somewhat dentate below vein 7 and at middle; a fine white line at base of cilia. Hind wing fuscous brown, the cilia whitish tinged with brown; the underside brownish white slightly irrorated with brown.

Hab. S. Nigeria, Olokemeji (*Dudgeon*), 1 ♀ type. *Exp.* 32 millim.

7062. **Negeta stalactitis.** (Plate CXC. fig. 23.)

Westermannia stalactitis, Hmpsn. A. M. N. H. (7) xvi. p. 591 (1905).

♀. Head and thorax greyish brown; palpi whitish in front; abdomen fuscous brown. Fore wing pale reddish brown with a

cupreous tinge, the basal area glossed with grey; a somewhat oblique slightly sinuous antemedial line with a minute dark wedge-shaped mark from costa before it; a wedge-shaped chocolate patch from middle of costa to vein 1, its edges defined by whitish lines and waved, its point bent outwards and acute; three white discoidal points, the lowest rather larger; a sinuous postmedial line, oblique from costa to vein 6, excurved at median nervules, then incurved; a somewhat semicircular chocolate patch on costa towards apex, with two pale points on costa, its edge defined by a pale line, slightly indented on inner side and angled outwards on outer; a subterminal series of minute black and white spots, the spot below costa slightly larger; cilia with a fine pale line at base. Hind wing fuscous brown with a reddish gloss; the underside whitish suffused and irrorated with brown down to median nervure and vein 2, an indistinct curved postmedial line.

Hab. S. Nigeria, Old Calabar (*Crompton*), 2 ♀ type. *Exp.* 28 millim.

7063. **Negeta cinerascens.** (Plate CXC. fig. 24.)

Periplusia cinerascens, Holl. Psyche, vii. pp. 30, 143, pl. 1. f. 5 (1894).

Head, thorax, and abdomen grey-brown; palpi in front and pectus ochreous whitish, the legs suffused with brown; abdomen with the ventral surface ochreous whitish. Fore wing chocolate-brown suffused with purplish grey and irrorated with greenish white scales; an indistinct dark sinuous antemedial line; two white discoidal points; postmedial line dark, oblique from costa to vein 6 and inwardly oblique below vein 4; an indistinct maculate dark subterminal line, incurved at discal fold and with greenish white suffusion before and beyond it from vein 4 to inner margin; cilia white at tips below apex, at middle and above tornus. Hind wing dark brown; cilia whitish at tips; the underside greyer.

Ab. 1. Fore wing with more distinct subterminal dark spots with patches of greenish white scales on their outer edges; cilia with no white at tips.

Ab. 2. Fore wing with hardly a trace of greenish white on outer side of the subterminal spots.

Hab. S. Nigeria, Old Calabar (*Crompton*), 2 ♂, Akassa (*Lugard*), 1 ♀; Gaboon, Ogové R., 1 ♂ co-type. *Exp.* 32–34 millim.

7064. **Negeta nubilicosta.** (Plate CXC. fig. 25.)

Periplusia nubilicosta, Holl. Psyche, vii. pp. 30, 143, pl. 1. fig. 4 (1894).

Head and tegulæ grey suffused with brown, the latter white at tips; thorax grey tinged with brown and irrorated with a few brown scales; pectus and legs grey suffused with brown; abdomen brown. Fore wing grey tinged with brown and sparsely irrorated with brown scales; a diffused blackish fascia from costa before

middle below the costa to apex; an indistinct brown postmedial line, oblique from costa to vein 6, then inwardly oblique and sinuous; faint traces of a brownish subterminal line excurved below vein 7 and at middle. Hind wing dark brown, the cilia whitish at tips; the underside greyish suffused with brown especially on terminal area.

Hab. Gold Coast, Kumasi (*Whiteside*), 1 ♀; S. Nigeria, Sapele (*Sampson*), 1 ♂; Gaboon, Ogové R., 1 ♂ co-type. *Exp.* 32–36 millim.

7065. **Negeta phæopepla.** (Plate CXC. fig. 26.)

Westermannia phæopepla, Hmpsn. A. M. N. H. (7) xvi. p. 591 (1905).

♀. Head, thorax, and abdomen pale grey-brown; pectus and ventral surface of abdomen whitish. Fore wing pale fuscous brown, the costal area except on medial area paler with an ochreous tinge and slight dark irroration; antemedial line indistinct, dark, very slightly incurved; an obscure dark discoidal bar; postmedial line indistinct, dark, diffused, oblique from costa to vein 6, then inwardly oblique, a faint dark spot beyond it at vein 4. Hind wing fuscous brown with a faint reddish gloss. Underside pale grey; fore wing suffused with fuscous except the marginal areas.

Hab. S. Nigeria, Sapele (*Sampson*), 1 ♀ type. *Exp.* 28 millim.

*7066. **Negeta ochreoplaga.** (Plate CXC. fig. 27.)

Westermannia ochreoplaga, Beth.-Baker, A. M. N. H. (8) iii. p. 430 (1909).

♂. Head, thorax, and abdomen red-brown, the last with the basal crest pale rufous; pectus, legs, and ventral surface of abdomen greyish. Fore wing red-brown; a slight obliquely curved almost medial blackish line defined on outer side by silvery grey; postmedial line black defined on inner side by silvery grey except beyond the cell, strongly excurved from below costa to vein 4, then bent inwards to lower angle of cell and oblique to inner margin; an olive-ochreous patch between the two lines on costal area with a small oblique black discoidal spot on it, and a slight grey streak in submedian fold; some pale points on postmedial part of costa; subterminal line pale brown with patches of black before it below vein 7 and at middle where it is excurved, then strongly incurved and defined on outer side by black on inner area; a terminal series of slight dark striæ defined on inner side by pale brown; a fine pale line at base of cilia. Hind wing fuscous brown with a fine pale line at base of cilia; the underside greyish suffused with fuscous brown except on costal and inner areas.

Hab. Congo Free State, Makala Distr. (*Powell-Cotton*), type † ♂ in Coll. Bethune-Baker. *Exp.* 22 millim.

7067. Negeta mesoleuca. (Plate CXC. fig. 28.)

Turache mesoleuca, Holl. Psyche, vii. pp. 128, 144, pl. 5. f. 27 (1894).

♂. Head, thorax, and abdomen white tinged with rufous; fore legs suffused with fuscous. Fore wing white suffused with pale rufous; the costal area suffused with fuscous to beyond middle; faint traces of a dark spot in base of cell and of a waved antemedial line; terminal area deep red-brown, its inner edge incurved from costa before apex to middle of inner margin, a black patch on middle of terminal area with some irregular white markings above and below it; two black and silvery discoidal points with a slight oblique white striga from costa towards them; a very slightly waved black line defined by silver on outer side, excurved from below costa beyond middle to vein 3 where it emits a spur to the discoidal points, then oblique to inner margin; a slight black striga just before termen below apex; cilia white with some fuscous points at base. Hind wing white tinged with brown.

♀. Head and tegulæ brown; thorax and ground-colour of fore wing pure white; hind wing brown, the cilia white tinged with brown at base; the underside whitish.

Hab. Sierra Leone (*Clements*), 1 ♂, 1 ♀; Gold Coast, Kumasi (*Whiteside*), 1 ♂; S. Nigeria, Lagos (*Dudgeon*), 2 ♀, Ilesha (*Humfrey*), 3 ♀; Gaboon, Ogové Valley, 1 ♂ co-type. *Exp.* 16–22 millim.

7068. Negeta luminosa. (Plate CXC. fig. 29.)

Acontia luminosa, Wlk. xv. 1759 (1858).
Thalpochares parectata, Wllgrn. Wien. Ent. Mon. vii. p. 148 (1863).
Micra lacteola, Mab. C.R. Soc. Ent. Belg. 1880, p. xix.

Head and thorax pure white; palpi, frons, antennæ and fore legs tinged with brown; abdomen white faintly tinged with brown, leaving slight white dorsal segmental lines. Fore wing pure white, the costa and terminal area suffused with purplish grey; pale olive spots defined by silvery white at middle of costa and on discocellulars and a band from lower angle of cell to inner margin; some white striæ on postmedial part of costa; postmedial line silvery white, arising from below costa towards apex, slightly waved and defined on inner side by olive and blackish spots to vein 3, then bent inwards to the medial band; subterminal line slight, white, waved, the veins beyond it with slight white streaks defining a series of grey spots just before the white termen; a fine brown terminal line; cilia white. Hind wing white, the terminal area tinged with brown from apex to vein 2, in female the whole terminal area tinged with brown; cilia white. Underside of fore wing suffused with grey-brown.

Hab. S. Nigeria, Old Calabar (*Sampson*), 1 ♀, Ilesha (*Humfrey*), 1 ♂; N. Nigeria, Zungeru (*Macfie*), 1 ♂, Minna (*Macfie*), 1 ♂, Borgu, Yelwa Lake (*Migeod*), 1 ♂; Congo (*Curror*), 1 ♂ type;

Abyssinia, Atbara (*Gerrard*), 1 ♂; Br. E. Africa, Taveta (*Rogers*), 2 ♀, Kiberas (*Betton*), 1 ♂, Tana R. (*Crawshay*), 1 ♀; Br. C. Africa, Rukuru R. (*Neave*), 1 ♂; N. Rhodesia, Up. Luangwa R. (*Neave*), 1 ♀; Bechuanaland, L. N'Gami, type *parectata* in Mus. Stockholm; Matabeleland; Transvaal, White R. (*Cooke*), 1 ♀; Madagascar, type † *lacteola* in Coll. Mabille. *Exp.* 18–22 millim.

7069. **Negeta albigrisea.**

Westermannia albigrisea, Hmpsn. P. Z. S. 1910, p. 415, pl. xxxvi. f. 26.

Head white tinged with olive-yellow; thorax white, the fore legs brownish in front; abdomen white tinged with brown. Fore wing with the basal area white tinged with violaceous grey, the terminal half violaceous grey, the costal edge rufous; a rather diffused and somewhat inwardly oblique pale olive-yellow medial line with large quadrate silvery white patch beyond it from just below costa to vein 3, defined on outer side by a series of black striæ with some silvery scales on their outer side before the post-medial line, which is indistinct, somewhat excurved below costa and at middle, then bent inwards to near the medial line; traces of a maculate rufous subterminal line, somewhat angled outwards at vein 7 and excurved at middle; a terminal series of grey striæ slightly defined on inner side by white. Hind wing white suffused with brown especially on terminal area; cilia white; the underside white.

Hab. N.E. Rhodesia, Chambezi Valley (*Neave*), 1 ♂, 1 ♀ type, S. Bangweola, E. Luangwa Distr. *Exp.* 24 millim.

7070. **Negeta ruficeps.** (Plate CXC. fig. 30.)

Westermannia ruficeps, Hmpsn. Ann. S. Afr. Mus. ii. p. 446 (1902).

♂. Head red-brown; thorax white, the tegulæ tinged with brown; pectus white; legs white tinged with ochreous; abdomen white dorsally suffused with brown leaving white segmental lines. Fore wing creamy white, the costa suffused with pale olive; two minute black discoidal points, an olive band from before them at discal fold to inner margin and some olive suffusion beyond the cell; postmedial line formed by minute dentate black marks slightly defined on outer side by whitish, excurved below costa, oblique to vein 4, then incurved; the terminal area thickly irrorated with red-brown; traces of a brown subterminal line, minutely waved to vein 4, then incurved and with chocolate-brown suffusion beyond it from below costa to vein 2 and above inner margin; a fine red-brown terminal line. Hind wing semihyaline ochreous white, the veins of terminal area and the termen tinged with brown.

Hab. Natal, Durban (*Leigh*), 1 ♂ type. *Exp.* 24 millim.

7071. **Negeta purpurascens**, n. sp. (Plate CXC. fig. 31.)

♂. Head, thorax, and abdomen grey suffused with brown, the pectus and ventral surface of abdomen whiter. Fore wing white, the basal half tinged with brown and the costal area suffused with red-brown; an oblique black striga from middle of costa; two black discoidal points; an olive patch on costa above end of cell, an oblique band from discal fold in end of cell to inner margin, and some suffusion beyond the cell; postmedial line slight, black, faintly defined on outer side by whitish, excurved below costa, then oblique and minutely dentate to vein 4, then incurved; the terminal area irrorated and suffused with red-brown; some oblique white striæ from costa; subterminal line black faintly defined on inner side by whitish, formed of minute dentate marks to vein 4, then incurved, chocolate-brown patches beyond it below vein 7, at middle and above inner margin; a fine red-brown terminal line defined on inner side by white. Hind wing semihyaline greyish suffused with brown; cilia whitish at tips; the underside whitish, the terminal area suffused with brown from costa to vein 2.

Hab. Gold Coast, Kumasi (*Whiteside*), 2 ♂ type. *Exp.* 20 millim.

7072. **Negeta chlorocrota.** (Plate CXC. fig. 32.)

Rhæsena chlorocrota, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 677 (1907).

Head and thorax white tinged with olive-yellow and irrorated with a few black scales; palpi with blackish mixed; frons with blackish bar above; pectus and legs brownish white, the fore legs blackish in front; abdomen brownish white. Fore wing creamy white very slightly irrorated with black; a black streak from base of costa through the cell to the postmedial line, with some purplish grey suffusion below it, and also above it beyond the cell, bisecting the reniform which is elliptical and incompletely defined by black; an olive-green fascia in upper part of cell before the reniform and another from beyond the reniform to just beyond the postmedial line; a black antemedial point on vein 1 and traces of an oblique olive-green and greyish medial line from cell to inner margin; postmedial line slight, double, with minute black streaks and white striæ on the inner line and some olive-green suffusion before it from vein 4 to inner margin, excurved from costa to vein 4, then very oblique to submedian fold and erect to inner margin, some purplish grey suffusion beyond it except towards costa; subterminal line olive-green below costa, then black, slightly incurved at discal fold and angled outwards at vein 4, oblique to vein 2, and again slightly excurved; the terminal area white irrorated with brown and with some olive-green suffusion at apex; a terminal series of black striæ; cilia with a slight dark line at middle and series of black points at tips. Hind wing ochreous white, the veins and terminal area suffused with brown, more uniformly suffused in female; a series of black striæ just before termen; cilia ochreous white; the under-

side ochreous white with some black irroration on costal area and a series of small black spots just before termen, in female with a curved postmedial line and some black irroration on terminal area.

Hab. Bombay, Kanara, Karwar (*T. R. Bell*), 1 ♀ type; Ceylon, Kandy (*Green*), 1 ♂. *Exp.* 30 millim.

7073. Negeta contrariata.

Negeta contrariata, Wlk. xxiv. 1105 (1862).
Hypena dentilinealis, Moore, P. Z. S. 1877, p. 613, pl. 60. f. 7; Hmpsn. Moths Ind. ii. p. 360.

Head and thorax white faintly tinged with brown except in front, and irrorated with a few brown scales; palpi brown except at base in front; frons with brown band above; pectus, legs, and abdomen white tinged with brown. Fore wing white slightly tinged with brown and sparsely irrorated with red-brown scales; a small brown spot at upper angle of cell; postmedial line brown, arising from apex, oblique and crenulate to vein 2, then very oblique to submedian fold and erect to middle of inner margin; a subterminal

Fig. 251.—*Negeta contrariata*, ♂. ½.

series of slight blackish points, somewhat excurved at middle and incurved below vein 2. Hind wing brown, the base and costal area whiter; a pure white line at base of cilia; the underside white tinged with brown.

Ab. 1. Fore wing whiter with hardly any brown tinge and irrorated with dark brown; hind wing white to beyond middle.—N. Guinea.

Hab. Andamans (*Rogers*), 4 ♂ type *dentilinealis*; Borneo, Sarawak (*Wallace*), 1 ♀, Sandakan (*Pryer*), 2 ♂; Dutch N. Guinea, Fak-fak (*Pratt*), 1 ♀. *Exp.* 36–38 millim. Type † in Mus. Oxon.

7074. Negeta sublineata.

Urbona sublineata, Wlk. Journ. Linn. Soc., Zool. vi, p. 184 (1862); Swinh. Cat. Het. Mus. Oxon. ii. p. 73, pl. ii. f. 19.
Acontia leucophæa, Wlk. Journ. Linn. Soc., Zool. vii. p. 49 (1864).
Nagasena albescens, Moore, Lep. Atk. p. 152 (1882); Hmpsn. Moths Ind. ii. p. 360.

Head and thorax pale brown with a purplish tinge, the vertex of head and base of tegulæ pure white; palpi white in front; pectus and legs white tinged with brown; abdomen brown, ventrally whitish. Fore wing white tinged and irrorated with brown, the

inner area with a purplish tinge; a brown point at upper angle of cell; a very obliquely curved red-brown line from apex to inner margin before middle: a very indistinct subterminal brown line, oblique and waved to vein 3, then incurved and forming a wedge-shaped patch on inner area; a terminal series of black points. Hind wing ochreous white suffused with brown, the costal area whiter; the underside brownish white, with indistinct diffused curved brown postmedial line in male.

Hab. Sikhim (*Atkinson*), 1 ♂ type *albescens*; Bhután (*Dudgeon*), 1 ♀; Assam, Margherita; Burma, Rangoon, 1 ♀; Borneo, Sarawak (*Wallace*), type † and type † *leucophœa* in Mus. Oxon. *Exp.* ♂ 30, ♀ 28 millim.

7075. **Negeta lacteata.**

Urbana lacteata, Hmpsn. P. Z. S. 1910, p. 414, pl. xxxvi. f. 21.

Head, thorax, and abdomen creamy white, the palpi tinged with rufous behind, the antennæ tinged with fuscous. Fore wing creamy white irrorated with a few black-brown scales; a black discoidal point; postmedial line brown, arising very near apex, angled outwards below apex, then very oblique and slightly sinuous to middle of inner margin, some dark points on it towards apex; a slight oblique minutely waved brownish subterminal line somewhat excurved at middle; a terminal series of black striæ; cilia finely pencilled with brown. Hind wing ochreous white.

Hab. N.E. Rhodesia, N. Luangwa, Mt. Ulungu (*Neave*), 1 ♂ type, Luangwa R., Lusangazi (*Neave*), 1 ♂. *Exp.* 26 millim.

7076. **Negeta nivea.** (Plate CXCI. fig. 1.)

Westermannia nivea, Hmpsn. Ann. S. Afr. Mus. ii. p. 315 (1902).

♂. Head and thorax pure white; palpi, antennæ, and legs tinged with ochreous; abdomen white slightly tinged with ochreous. Fore wing silvery white; the costal edge ochreous; traces of minute brownish antemedial spots below the cell and above inner margin; a very indistinct maculate yellow medial line slightly bent outwards below the costa, then oblique; traces of a brownish spot at lower angle of cell; an indistinct oblique waved brownish postmedial line; an indistinct maculate yellow subterminal line, slightly excurved below vein 7 and at middle; a terminal series of brownish striæ; cilia slightly irrorated with brown. Hind wing white, the terminal area faintly tinged with brown.

Hab. Br. C. Africa, Mlanji Boma (*Neave*), 1 ♂; Mashonaland, Salisbury (*Marshall*), 4 ♂ type. *Exp.* 26–30 millim.

Genus **ODONTESTIS**, nov.

Type, *O. prosticta*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd moderate; frons smooth, with tuft of

hair above; eyes large, round; antennæ of male moderately ciliated; thorax clothed almost entirely with scales and without crests; tibiæ fringed with long hair; abdomen with crests on two basal segments. Fore wing with the apex somewhat produced and acute, the termen evenly curved and slightly crenulate, the inner margin with lobe and scale-tooth at middle and scale-tooth at tornus; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Hind tibiæ of male greatly dilated and fringed with long hair; hind wing on underside with fringe of scales in lower extremity of cell.

A. Fore wing with double-humped dark patch on middle of costa ..... *cyphonota.*
B. Fore wing with triangular dark patch on middle of costa... *prosticta.*

7077. Odontestis cyphonota, n. sp. (Plate CXCI. fig. 2.)

♂. Head and thorax grey, the head and tegulæ tinged with fuscous; fore legs and mid tibiæ tinged with fuscous, the fringe of hair on hind tibiæ ochreous tipped with brown; abdomen ochreous grey, the crests at base of dorsum brownish. Fore wing grey faintly tinged with brown and slightly irrorated with dark scales; a purplish fuscous patch at middle of costa edged with black-brown, its lower edge somewhat excised and forming a double hump; a black point at lower angle of cell; postmedial line brownish, almost obsolete toward costa, below which it is excurved, then oblique and somewhat diffused; traces of a diffused subterminal line, excurved at middle, then incurved. Hind wing greyish suffused with fuscous brown; cilia with a fine pale line at base.

Hab. Gold Coast, Kumasi (*Whiteside*), 1 ♂ type. *Exp.* 26 millim.

7078. Odontestis prosticta.

Plusiocalpe prosticta, Holl. Psyche, vii. pp. 29, 143, pl. 1. f. 3 (1894).

Head and thorax grey; palpi and fore legs in front tinged with fuscous; abdomen grey tinged with brown. Fore wing grey faintly

Fig. 252.—*Odontestis prosticta*, ♂. $\frac{1}{1}$.

clouded with brown and with slight dark irroration; the costal edge blackish at base; a triangular grey-black patch at middle of costa

and a point at lower angle of cell; postmedial line brown, excurved and obsolescent below costa, then oblique. Hind wing grey suffused with brown, especially in female.

Hab. Gold Coast, Ashanti (*Dudgeon*), 1 ♀; S. Nigeria, Olokemeji (*Dudgeon*), 1 ♀; N. Nigeria, Lokoja (*Dudgeon*), 1 ♂; Gaboon, Ogové R., 1 ♀ co-type. *Exp.* 24–30 millim.

Sect. II. Hind tibiæ of male not dilated; hind wing without fringe of scales in cell.

A. Hind femora of male fringed with long hair below, the tibiæ with very large tufts of fuscous and ochreous hair on inner side.

7079. Odontestis striata, n. sp.

Head, thorax, and abdomen grey suffused with reddish brown; palpi, antennæ, and fore legs tinged with fuscous, the tarsi fuscous with pale rings. Fore wing grey tinged with reddish brown and

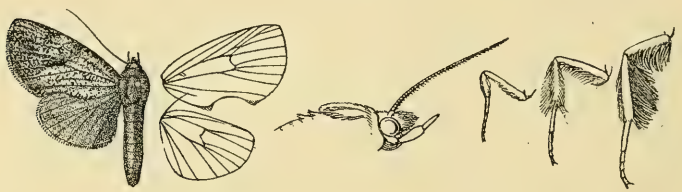


Fig. 253.—*Odontestis striata*, ♂. ½.

striated with black; no lines or markings, except a slight oblique fuscous shade beyond lower angle of cell. Hind wing grey suffused with reddish brown; the underside grey-white tinged with brown and striated with fuscous.

Hab. Br. C. Africa, Karonga (*Neave*), 1 ♂; N.E. Rhodesia, Luangwa R., Lusangazi (*Neave*), 1 ♀ type. *Exp.* 34 millim.

B. Hind femora of male not fringed with hair below, the tibiæ with slight tufts of hair on inner side.

a. Fore wing with conical dark patch on middle of costa... *fuscicona*.

b. Fore wing without dark patch on middle of costa..... *mesonephele*.

7080. Odontestis fuscicona.

Arcyophora fuscicona, Hmpsn. P. Z. S. 1910, p. 413, pl. xxxvi. f. 11.

♂. Head, thorax, and abdomen pale rufous; palpi black, white at tips; lower part of frons black with white spot; antennæ tinged with fuscous; pectus and legs greyer, the fore legs fuscous in front, the mid and hind tibiæ and tarsi irrorated with fuscous. Fore wing greyish suffused with rufous and slightly irrorated with fuscous; a conical black-brown patch on middle of costa; a minute blackish point at lower angle of cell; a diffused fuscous subterminal shade,

angled outwards below vein 7 and at middle. Hind wing silky ochreous suffused with reddish brown; cilia whitish at tips; the underside whitish irrorated with brown.

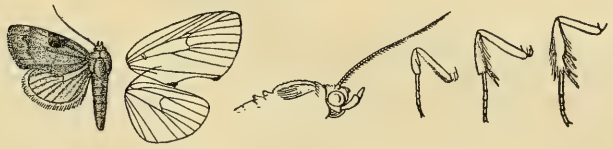


Fig.254.—*Odontestis fuscicona*, ♂. ½.

♀. Head, thorax, and fore wing much greyer and with hardly any rufous tinge.

Hab. N.E. Rhodesia, E. Luangwa Distr. (*Neave*), 1 ♀, Petauke (*Neave*), 1 ♂, Lusangazi (*Neave*), 1 ♂, 2 ♀; Portuguese E. Africa, Chinde (*Neave*), 1 ♂ type. *Exp.* 26 millim.

*7081. **Odontestis mesonephele.** (Plate CXCI. fig. 3.)

Arcyothora mesonephele, Beth.-Baker, A. M. N. H. (8) iii. p. 431 (1909).

♀. Head and thorax whitish suffused with rufous, the tips of tegulæ and base of patagia white; abdomen dorsally brown, ventrally whitish tinged with rufous. Fore wing whitish slightly irrorated with red-brown, the medial area and the terminal area except at apex red-brown; antemedial line slight, brown, inwardly oblique and minutely waved; a large patch of bluish white irroration in, beyond, and below end of cell; an oblique waved brown line from lower angle of cell to inner margin; postmedial line brown, very oblique from costa to vein 5, then inwardly oblique and angled outwards at vein 2 and to inner margin; subterminal line represented by two slight brown marks towards costa and a minutely waved brown line from vein 6 to inner margin; cilia red-brown except at apex. Hind wing fuscous brown, the costal area whitish; the underside brownish white.

Hab. Congo Free State, Makala Distr. (*Powell-Cotton*), type † ♀ in Coll. Bethune-Baker. *Exp.* 24 millim.

Genus **MACROCHTHONIA.**

	Type.
Macrochthonia, Butl. Trans. Ent. Soc. 1881, p. 599	*fervens.*
Eccopteroma, Staud. Rom. Mém. vi. p. 506 (1892)	*fervens.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd moderate; frons smooth, with tuft of hair above; eyes large, round; antennæ of male bipectinate with rather long branches to two-thirds length, the apex ciliated; of female ciliated; thorax clothed with scales and hair mixed, the prothorax with triangular ridge-like crest; tibiæ moderately fringed with hair; abdomen long, with dorsal crests on two basal segments. Fore wing with the apex somewhat produced and

acute, the termen excised below apex; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

7082. Macrochthonia fervens.

Macrochthonia fervens, Butl. Trans. Ent. Soc. 1881, p. 599.
Calymnia falcata, Græs. Berl. Ent. Zeit. xxxiii. p. 257 (1889), ♀; Staud. Rom. Mém. vi. p. 506, pl. 7. f. 10; id. Cat. Lep. pal. p. 203.
Calymnia pyrausta, Græs. Berl. Ent. Zeit. xxxiii. p. 258 (1889), ♂.

Head and thorax red-brown; pectus whitish; legs brown, the tarsi ringed with white; abdomen whitish suffused with brown. Fore wing red-brown with a slight purplish tinge and some dark irroration; subbasal line brown, obliquely curved, from costa to vein 1; antemedial line brown, oblique from costa to median nervure where it is acutely bent outwards and met by a faint oblique shade from costa, then again oblique; a slight dark discoidal striga; postmedial line brown, angled outwards below

Fig. 255.—*Macrochthonia fervens*, ♂. ½.

costa, then oblique to inner margin near the antemedial line; the inner margin with a brown streak on it from the antemedial line to tornus; a subterminal series of small brown spots, angled inwards at discal fold and ending on termen at submedian fold; a terminal series of dark points. Hind wing whitish suffused with brown especially in female, the costal area paler; the underside whitish tinged with brown.

Hab. E. Siberia, Amurland, Ussuri; Japan, Oiwake (*Pryer*), 1 ♂, 3 ♀, Tokio (*Fenton*), 1 ♂ type; C. China, Kiukiang (*Pryer*), 1 ♂.
Exp. 34–40 millim.

Genus LOBOCRASPIS.

Type.
Lobocraspis, Hmpsn. Trans. Ent. Soc. 1895, p. 293 ..... *griseifusa*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and smoothly scaled, the 3rd minute; frons smooth; eyes large, round; antennæ ciliated; thorax clothed almost entirely with scales, the prothorax with slight ridge-like crest; tibiæ slightly fringed with hair and with the spurs rather long in female, the mid and hind tibiæ in male without spurs and with immense tufts of long hair, the proximal joints of tarsi fringed with hair; abdomen with crests on two basal segments. Fore wing long and narrow, the apex somewhat produced and acute, the termen oblique below

vein 4, the inner margin strongly lobed before middle; vein 3 from well before angle of cell; 5 from above angle; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3 and 5 from near angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to beyond middle.

7083. Lobocraspis griseifusa.

Lobocraspis griseifusa, Hmpsn. Trans. Ent. Soc. 1895, p. 293; id. Moths Ind. iv. p. 494.

Head, thorax, and abdomen above grey mixed with brown; pectus, legs, and ventral surface of abdomen ochreous. Fore wing tawny ochreous irrorated with dark scales, the area below the cell and vein 4 suffused with grey-brown except the lobe on inner margin; two subterminal dark points below apex. Hind wing

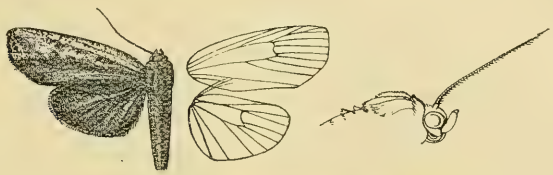


Fig. 256.—*Lobocraspis griseifusa*, ♀. ½.

fuscous, the termen yellow from apex to vein 2. Underside ochreous; fore wing with diffused fuscous on disk leaving ochreous orbicular and reniform spots.

Hab. Burma, Yaw, Tenasserim, Dawnat Range (*De Nicéville*), 1 ♀ type. *Exp.* 42 millim.

Genus GONIOXESTIS, nov.

Type, *G. zanderi*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and slenderly scaled, the 3rd moderate; frons smooth, with tuft of scales; eyes large, round; antennæ of female ciliated; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled; abdomen with dorsal crests on two basal segments. Fore wing with the apex produced and acute, the termen somewhat excised to vein 4 where it is angled, then oblique and sinuous, the inner margin with large lobe and scale-tooth at middle, then excised to tornus where there is a scale-tooth; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3 and 5 from near angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to beyond middle.

7084. Gonioxestis zanderi.

Arcyophora zanderi, Feld. Reis. Nov. pl. 111. f. 15 (1874).

♀. Frons, vertex of head, and tegulæ black-brown edged with white; palpi grey, blackish at tips; thorax grey tinged with blackish in front; tarsi ringed with white; abdomen white, the

ventral surface with some dark scales. Fore wing grey tinged with brown and thickly striated with brown, the veins slightly paler; antemedial line pale purplish pink defined on outer side by

Fig. 257.—*Gonioxestis zanderi*, ♀. ½.

brown, very oblique inwardly; postmedial line pale purplish pink defined on inner side by brown, oblique from costa to vein 7 where it is acutely angled, then inwardly oblique; an oblique blackish streak from apex. Hind wing semihyaline white, the veins of terminal half and the terminal area to below vein 2 tinged with brown; a brown terminal line.

Hab. Up. Guinea, Dioudougon, 1 ♀; Abyssinia. *Exp.* 46 millim.

Genus **NEAXESTIS.**

Type.

Neaxestis, Hmpsn. Ann. S. Afr. Mus. ii. p. 316 (1902) ..... *acutangula.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to middle of frons and slenderly scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male with long cilia; thorax clothed almost entirely with scales and without crests; tibiæ moderately fringed with hair, the mid and hind tibiæ with slight tuft of hair at extremity; abdomen with slight crest at base only. Fore wing with the apex somewhat produced, the termen evenly curved, the inner margin with lobe before middle and slight scale-tooth at tornus; vein 3 from before angle of cell; 4, 5 from angle; 6, 7 from upper angle; 8, 9 absent in male, 8 shortly stalked with 7 in female; 10, 11 from cell. Hind wing with veins 3, 4 shortly stalked; 5 fully developed from angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

A. Fore wing with the postmedial line angled outwards to below apex.
  a. Fore wing with the costal area white, the lines fuscous defined by white ..... *griseata.*
  b. Fore wing with the costal edge white, the lines fine and white ..... *acutangula.*
B. Fore wing with the postmedial line not angled outwards to below apex.
  a. Fore wing bright rufous ..... *rhoda.*
  b. Fore wing ochreous.
    a^1. Fore wing with the postmedial line oblique below vein 6 ..... *mesogonia.*
    b^1. Fore wing with the postmedial line incurved below vein 6.
      a^2. Fore wing with blackish discoidal point ..... *irrorata.*
      b^2. Fore wing without blackish discoidal point ..... *piperita.*

7085. **Neaxestis griseata.** (Plate CXCI. fig. 4.)

Neaxestis griseata, Hmpsn. Ann. S. Afr. Mus. ii. p. 316 (1902).

♂. Head and thorax white, the tegulæ pinkish at tips, the thorax dorsally suffused with rufous; abdomen white dorsally tinged with brown. Fore wing rufous irrorated with brown, the costa white to near apex; antemedial line brown defined on outer side by white, obliquely curved; a slight brown discoidal bar; postmedial line brown defined on outer side by a white band, angled outwards below apex to termen, then very oblique and defined on outer side by the brown subterminal line which has some whitish on its outer edge; cilia with whitish mixed. Hind wing semihyaline white, the termen yellowish.

Hab. Mashonaland, Umtali (*Marshall*), 1 ♂ type. *Exp.* 30 millim.

7086. **Neaxestis acutangula.**

Neaxestis acutangula, Hmpsn. Ann. S. Afr. Mus. ii. p. 316 (1902).

Head and thorax ochreous white suffused with rufous, the head paler; palpi whitish tinged with brown above; pectus and legs whitish, the fore legs tinged with brown; abdomen whitish dorsally tinged with brown. Fore wing ochreous white suffused with rufous and irrorated with some dark scales, the costal edge whitish

Fig. 258.—*Neaxestis acutangula*, ♂. ½.

except towards base; a yellowish streak in submedian fold; antemedial line whitish, acutely angled outwards on median nervure, then oblique; a black point at lower angle of cell; postmedial line whitish, very acutely angled outwards to below apex, then very oblique; cilia rufous. Hind wing semihyaline whitish, the termen and cilia tinged with ochreous brown.

Hab. Transvaal, Pretoria (*Janse*), 1 ♀; Cape Colony, Annshaw (*Miss F. Barrett*), 1 ♂, 1 ♀ type. *Exp.* ♂ 26, ♀ 30 millim.

7087. **Neaxestis rhoda.** (Plate CXCI. fig. 5.)

Neaxestis rhoda, Hmpsn. Ann. S. Afr. Mus. iii. p. 429 (1905).

Head and thorax rufous tinged with crimson; pectus and legs white, the tibiæ and tarsi suffused with rufous and crimson; abdomen white dorsally suffused with ochreous and brown leaving

slight white segmental lines. Fore wing yellow suffused with rufous and tinged with crimson especially on terminal area; an obliquely curved dark antemedial line from costa just before middle to inner margin; a dark discoidal point usually present; postmedial line dark, oblique from costa to below vein 7, then inwardly oblique and slightly incurved; traces of a subterminal series of minute dark spots, excurved below costa. Hind wing semihyaline white, the termen and cilia yellow.

Hab. Rhodesia, Bulawayo (*Eyles*), 2 ♂, 2 ♀ type; Transvaal, Johannesburg (*Cooke*), 1 ♂, Warmbad (*Janse*), 1 ♀. *Exp.* 24–millim.

7088. **Neaxestis mesogonia.** (Plate CXCI. fig. 6.)

Paraxestis mesogonia, Hmpsn. A. M. N. H. (7) xvi. p. 585 (1905).

♂. Head and thorax ochreous tinged with rufous; pectus and legs whitish; abdomen ochreous, the ventral surface white. Fore wing ochreous, the basal and costal areas to postmedial line irrorated with brown, the medial area except towards costa and the terminal area suffused with rufous; a brown antemedial line obtusely angled in cell, then oblique and slightly sinuous; a brown postmedial line angled at vein 6, then oblique; traces of a subterminal line towards costa and an ill-defined spot on inner margin; cilia rufous mixed with brown. Hind wing semihyaline yellowish white with a slight rufous tinge towards termen.

♀. Fore wing with the medial area suffused with dark brown, the terminal area tinged with brown; hind wing more ochreous, the termen brownish.

Hab. Gambia (*Moloney*), in Coll. Druce; Abyssinia, Atbara R. (*Gerrard*), 2 ♂, 1 ♀ type. *Exp.* ♂ 24, ♀ 26 millim.

7089. **Neaxestis irrorata.**

Paraxestis irrorata, Hmpsn. P. Z. S. 1910, p. 413, pl. xxxvi. f. 10.

♂. Head and thorax whitish ochreous tinged with rufous and irrorated with fuscous; antennæ tinged with rufous; abdomen ochreous dorsally suffused with rufous. Fore wing whitish ochreous slightly tinged with rufous and irrorated with black; antemedial line very indistinct, angled outwards on median nervure; a black discoidal point; postmedial line very indistinct and oblique from costa to vein 6, then pale rufous, strongly incurved below vein 5; a faint diffused rather maculate subterminal blackish shade, excurved below costa; cilia blackish at tips. Hind wing yellowish white with slight rufous terminal line except towards tornus; the underside with the costal area white.

Hab. N.E. Rhodesia, Luangwa R. (*Neave*), 1 ♂ type. *Exp.* 26 millim.

7090. **Neaxestis piperita.** (Plate CXCI. fig. 7.)

Arcyophora piperita, Hmpsn. A. M. N. H. (7) xvi. p. 585 (1905).

♀. Head ochreous; thorax ochreous suffused with brown; pectus, legs, and abdomen whitish. Fore wing ochreous thickly irrorated with brown, the terminal half tinged with rufous and the terminal area very minutely striated with brown; an indistinct antemedial line slightly excurved below costa, then oblique; an indistinct postmedial line excurved from below costa to vein 5, then slightly incurved; faint traces of a subterminal line. Hind wing semihyaline white, the termen tinged with ochreous.

Hab. N. Nigeria, Borgu, Yelwa Lake (*Migeod*), 1 ♀ type. *Exp.* 22 millim.

Genus **PARAXESTIS.**

Type.

Paraxestis, Hmpsn. Ann. S. Afr. Mus. ii. p. 317 (1902) ..... *rufescens.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to middle of frons and slenderly scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male with long cilia; thorax clothed almost entirely with scales and without crests; tibiæ moderately fringed with hair, the mid and hind tibiæ with slight tufts of hair at extremity; abdomen with slight crest at base only. Fore wing with the apex somewhat produced, the termen evenly curved; the inner margin with lobe at middle and slight scale-tooth at tornus; vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with veins 3, 4 shortly stalked; 5 fully developed from angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

7091. **Paraxestis rufescens.**

Paraxestis rufescens, Hmpsn. Ann. S. Afr. Mus. ii. p. 317 (1902).

♂. Head and thorax brownish ochreous tinged with pink; pectus white; abdomen white dorsally tinged with ochreous. Fore wing brownish ochreous irrorated with a few dark scales, the costa slightly tinged with pink; antemedial line brown, excurved from

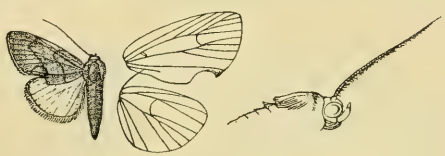


Fig. 259.—*Paraxestis rufescens*, ♂. ½.

costa to median nervure, then incurved; postmedial line brown, oblique from costa to vein 5, then inwardly oblique, below vein 2 incurved and giving off a curved line to inner margin near tornus. Hind wing semihyaline white, the veins and termen tinged with ochreous.

Hab. Natal, Durban (*Bowker*), 1 ♂ type. *Exp.* 26 millim.

Genus **MICROXESTIS**, nov.

Type, *M. vutzdorffi*.

Proboscis fully developed; palpi upturned to vertex of head, the 2nd joint moderately scaled, the 3rd short; frons smooth; eyes large, rounded; antennæ of male ciliated; head and thorax smoothly clothed with scales and without crests; tibiæ slightly fringed with hair on outer side; abdomen smoothly scaled. Fore wing with lobe and scale-tooth on middle of inner margin, then excised, the termen evenly curved; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 stalked; 5 fully developed from above angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

*7092. Microxestis vutzdorffi.

Euxestis wutzdorffi, Püng. Iris, xix. p. 223, pl. vii. fig. 5 (1907).

♂. Head and thorax ochreous tinged with rufous; pectus, legs, and abdomen ochreous white. Fore wing ochreous suffused with rufous; the antemedial line represented by a faint oblique pale shade; a faint rufous medial shade, oblique below the cell; a minute black discoidal point; postmedial line very indistinct, fine, rufous, bent outwards below costa, angled inwards at discal fold and

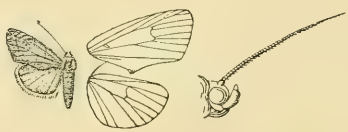


Fig. 260.—*Microxestis vutzdorffi*, ♂. ½.

incurved below vein 4, some small whitish spots beyond it on costa; a small whitish subapical spot with black point on its outer edge. Hind wing white, the terminal area faintly tinged with rufous; cilia white; the underside white with the costal area faintly tinged with rufous.

Hab. PALESTINE, Jordan, type † in Coll. Götschmann. *Exp.* 16 millim.

Genus **ARCYOPHORA**.

	Type.
Arcyophora, Guen. Noct. ii. p. 378 (1852)	*longivalvis.*
Euxestis, Led. Hor. Soc. Ent. Ross. vi. p. 88 (1869)	*dentula.*
Pseudocalpe, Hmpsn. Moths Ind. ii. p. 566 (1894)	*dentula.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male typically with fasciculate cilia; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen with small dorsal crest at base only. Fore wing with the apex somewhat produced and acute, the termen obliquely curved, the inner margin with lobe and scale-tooth at middle; veins 3 and 5 from near angle of cell; 6 from below upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3 and 5 from near angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to beyond middle.

Sect. I. Antennæ of male with long bristles and cilia; fore wing on underside with fan of scales at upper angle of cell, which is short, veins 6, 7 somewhat approximated and forming ridges with a narrow groove between them for half their length.

7093. Arcyophora bothrophora.

Arcyophora bothrophora, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 655 (1907).

Head and thorax olive-brown suffused with purplish fuscous; pectus, legs, and abdomen ochreous white, the fore legs tinged with fuscous, the tarsi with whitish rings. Fore wing olive-brown suffused with purplish fuscous; antemedial line whitish defined on outer side by blackish, oblique from middle of costa to inner margin; a slight blackish discoidal spot; postmedial line whitish

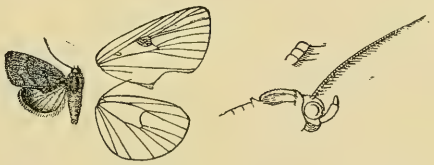


Fig. 261.—*Arcyophora bothrophora*, ♂. ½.

defined on inner side by blackish, excurved below costa, then oblique and sinuous; a subterminal series of small black spots, somewhat excurved below vein 7 and at middle. Hind wing white suffused with ochreous brown.

Hab. Punjab, Cawnpur (*Betton*), 1 ♀; Ceylon, Uva (*Alston*), 1 ♂ type, Haldamulla (*Mackwood*), 1 ♂. *Exp.* 22 millim.

Sect. II. Antennæ of male with fasciculate cilia; fore wing normal.

A. Fore wing with the angle of postmedial line met by an oblique dark streak from apex.
  a. Fore wing with the antemedial line bent inwards to base at vein 1 ..... *carniola*.
  b. Fore wing with the antemedial line oblique to inner margin ..... *longivalvis*.
B. Fore wing without oblique streak from apex.
  a. Fore wing with the antemedial line oblique to costa ..... *icterica*.
  b. Fore wing with the antemedial line excurved below costa.
    a^1. Fore wing with the medial area concolorous ..... *dentula*.
    b^1. Fore wing with the medial area suffused with red-brown ..... *stali*.

7094. Arcyophora carniola, n. sp. (Plate CXCI. fig. 8.)

♀. Head and thorax white tinged with pale brown; abdomen ochreous white. Fore wing white tinged with pale ochreous brown, the inner area with a violaceous tinge; antemedial line pale fuscous defined on inner side by white, oblique from costa to

vein 1, then bent inwards to base; a minute brown spot at upper angle of cell; postmedial line pale fuscous, oblique from costa to vein 6 where it is met by an oblique streak from apex, then oblique to middle of inner margin and defined on outer side by white; traces of a brownish subterminal line, excurved below vein 7 and at middle. Hind wing yellowish white, the terminal area more strongly tinged with ochreous.

Hab. Rhodesia, Zambesi, Victoria Falls (*Longstaff*), 1 ♀ type. *Exp.* 26 millim.

7095. Arcyophora longivalvis.

Arcyophora longivalvis, Guen. Noct. ii. p. 379, pl. 12. f. 9 (1852).
Chloephora lobidorsis, Zell. Stett. Ent. Zeit. 1863, p. 139, pl. ii. f. 2; Kirby, Cat. Lep. Het. p. 280.
Calpe apicalis, Wlk. xxxiii. 848 (1865).

♂. Head and thorax bright rufous sometimes tinged with grey-brown; palpi white tinged with brown; pectus and legs white, the fore and mid tibiæ and the tarsi tinged with brown; abdomen white tinged with ochreous, the basal crest rufous. Fore wing bright rufous sometimes tinged with yellowish or brown and with numerous more or less prominent pale striæ, the median nervure and vein 1 to postmedial line with pale streaks; antemedial line pale yellowish slightly defined on outer side by brown, oblique

Fig. 262.—*Arcyophora longivalvis*, ♂. ½.

and slightly curved from middle of costa to inner margin before middle; postmedial line pale yellowish slightly defined on inner side by brown, oblique from costa to below vein 7 where it is acutely angled, then inwardly oblique; an oblique black streak from apex and sometimes some points beyond the postmedial line below veins 5, 4, 3, 2. Hind wing semihyaline white, the veins of terminal half and the termen ochreous.

♀. Fore wing usually much more ochreous and with the striæ dark, the lines more prominently defined by dark brown.

Ab. 1. Fore wing with small dark spots with white centres beyond the postmedial line below veins 5, 4.

Hab. Bechuanaland, L. N'Gami (*Lugard*), 2 ♂, 4 ♀; Rhodesia, Bulawayo (*Marshall*), 1 ♂; Transvaal, Warmbad (*Janse*), 1 ♀; Natal, Durban (*Gueinzius*, *Leigh*), 1 ♂, 2 ♀ type *apicalis*; Aden (*Mathew*), 1 ♀. *Exp.* 34–48 millim. Zeller's type is said to be from Venezuela.

7096. Arcyophora icterica.

Dabarita icterica, Swinh. P. Z. S. 1886, p. 439, pl. 40. f. 8; Hmpsn. Moths Ind. ii. p. 566.
Calpe bifasciata, Hmpsn. Ill. Het. B.M. viii. p. 61, pl. 141. f. 11 (1891).

Head and thorax ochreous rufous mixed with some fuscous; pectus, legs, and abdomen ochreous yellow. Fore wing ochreous tinged with purplish rufous and striated with fuscous; antemedial line yellow, oblique, from below middle of costa to inner margin before middle; traces of two black discoidal points; postmedial line yellow, oblique from costa to below vein 7 where it is acutely angled, then inwardly oblique and somewhat sinuous; small subterminal fuscous black spots below veins 7, 6, 5, 4. Hind wing semihyaline white tinged with ochreous especially at termen.

Hab. Punjab (*Horne*), 1 ♀, Simla (*Harford*), 1 ♂, Jubbulpore (*F. Butler*), 1 ♂, 2 ♀, Cawnpore (*Betton*), 1 ♀; Bombay, Mhow (*Swinhoe*), 1 ♀ type; Madras, Nilgiris (*Hampson*), 1 ♂, 1 ♀ type *bifasciata*. *Exp.* 30–34 millim.

7097. Arcyophora dentula.

Euxestis dentula, Led. Hor. Soc. Ent. Ross. vi. p. 89, pl. 5. f. 8 (1869); Staud. Cat. Lep. pal. p. 234.
Bankia angulifera, Moore, P. Z. S. 1881, p. 373; Hmpsn. Moths Ind. ii. p. 566.
Anthophila innubila, Swinh. P. Z. S. 1886, p. 447.

Head and thorax ochreous white faintly tinged with rufous; pectus, legs, and abdomen white, the last dorsally tinged with grey. Fore wing ochreous faintly tinged with rufous, the inner and terminal areas with a slight violaceous tinge; antemedial line pale yellowish, obliquely curved, from below middle of costa to inner margin; postmedial line pale yellowish slightly defined on inner side by brown, oblique from costa to below vein 7, then inwardly oblique and very slightly sinuous; a subterminal series of minute brownish spots, excurved below costa and incurved at submedian fold. Hind wing semihyaline white tinged with greyish brown; cilia ochreous at base.

Ab. 1. *angulifera*. Head, thorax, and fore wing somewhat browner and less ochreous.

Hab. Syria, Mardin; Persia, Mesopotamia, 1 ♂, 1 ♀; W. Turkestan, S. Ferghana; Punjab, 1 ♀ type *angulifera*, Cambellpur (*Yerbury*), 1 ♀; Bombay, Mhow (*Swinhoe*), 1 ♀ type *innubila*. *Exp.* 22–26 millim.

7098. Arcyophora stali. (Plate CXCI. fig. 9.)

Setoctena stalii, Wllgrn. Wien. Ent. Mon. vii. p. 144 (1863); Kirby, Cat. Lep. Het. p. 280.

Head yellow, the palpi white irrorated with brown; thorax grey, the tegulæ tinged with yellow; pectus and legs white, the fore

legs irrorated with brown; abdomen white dorsally suffused with brown. Fore wing yellow suffused in parts with red-brown especially on medial area and sparsely irrorated with black, the inner half of ante- and postmedial areas greyish; antemedial line indistinct, brownish, obliquely excurved; postmedial line brownish, oblique from costa to vein 6, obliquely incurved below vein 4; an indistinct brownish subterminal line with slight white and black marks on its outer edge, excurved below vein 7 and at middle. Hind wing semihyaline, whitish, the veins of terminal area and the termen tinged with yellow-brown.

Hab. Bechuanaland, L. N'Gami (*F. Lugard*), 1 ♂, 1 ♀. *Exp.* ♂ 24, ♀ 28 millim. Type † in Mus. Stockholm.

Genus **PTEROGONIA.**

	Type.
Pterogonia, Swinh. Trans. Ent. Soc. 1891, p. 152.....	*episcopalis.*
Craspedagonia, Hmpsn. Ill. Het. B.M. ix. p. 117 (1893)	*nubes.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd long and moderately scaled; frons smooth with large pointed tuft of hair; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and with slight ridge-like dorsal crest; tibiæ moderately fringed with hair; abdomen with some rough hair at base but without crests. Fore wing with the apex slightly produced and acute; the termen typically slightly crenulate to vein 3, then obliquely curved, the inner margin highly arched; the cell broad at extremity; veins 3 and 5 from near angle of cell; the discocellulars straight; vein 6 from angle of cell; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from just above angle; 6, 7 from upper angle; 8 anastomosing with the cell to towards extremity.

Sect. I. (*Craspedagonia.*) Fore wing with the termen strongly excised below apex, slightly angled at vein 6 and obtusely at vein 3, the cilia crenulate.

7099. Pterogonia nubes.

Craspedagonia nubes, Hmpsn. Ill. Het. B.M. ix. p. 117, pl. 166. f. 3 (1893); id. Moths Ind. ii. p. 363.

♀. Head dark brown mixed with grey; thorax with the dorsum dark brown mixed with grey, the sides dull reddish brown; pectus

Fig. 263.—*Pterogonia nubes*, ♀. ½.

and legs white mixed with some brown, the fore legs brown, the tarsi black ringed with white; abdomen grey-brown, the ventral surface white. Fore wing dull reddish brown, the medial part of

postmedial area and the terminal area suffused with leaden fuscous and with numerous slight pale striæ; antemedial line brown, waved; the terminal half of costa with some brown points; an oblique series of slight whitish spots from apex to vein 6. Hind wing fuscous brown; cilia white at tips; the underside white, the terminal area suffused with brown.

Hab. Ceylon, Kelani Valley (*Butt*), 1 ♀ type. *Exp.* 38 millim.

Sect. II. Fore wing with the termen strongly excised from apex to vein 3 where it is acutely angled.

7100. Pterogonia aurigutta.

Thalatta aurigutta, Wlk. xv. 1793 (1858); Swinh. Cat. Het. Mus. Oxon. ii. p. 74, pl. ii. f. 7.
Pterognia irrorata, Dudgeon, J. Bomb. Nat. Hist. Soc. xvi. p. 402 (1905).

♀. Head and thorax whitish tinged with rufous and slightly irrorated with black; palpi and frons blackish; abdomen whitish tinged with ochreous brown. Fore wing whitish tinged with rufous and with very numerous rufous striæ; subbasal line slight, white, from costa to median nervure; antemedial line white defined on outer side by brown, very oblique to middle of inner margin; reniform a metallic golden lunule slightly defined by brown and with black points at upper and lower extremities;

Fig. 264.—*Pterogonia aurigutta*, ♀. ½.

postmedial line white defined on outer side by brown, strongly incurved from below costa to below vein 4 where it is angled outwards, then again incurved; subterminal black points below veins 5, 4, 3; cilia dark brown at tips. Hind wing brownish white, the terminal area broadly fuscous; cilia ochreous white. Underside of fore wing suffused with fuscous except the inner and terminal areas, a white discoidal lunule; hind wing dirty white with a broad blackish subterminal band.

♂. Fore wing more ferruginous; antemedial line oblique to below origin of vein 2, then waved; black spots at the angles of cell, the gold lunule absent.

Hab. Sikhim Bhután; Siam, Muok-Lek (*Frühstorfer*), 1 ♀; Singapore (*Wallace*), type † in Mus. Oxon. *Exp.* 44 millim.

Sect. III. Fore wing with the termen hardly excised below apex and obliquely curved below vein 3.

A. (*Pterogonia.*) Fore wing of male with vein 1 highly sinuous towards termen, the median nervure strongly curved upwards, then bent downwards to lower angle of cell, the neuration distorted near angles of cell; claspers very large and flattened.

7101. Pterogonia episcopalis.

Pterogonia episcopalis, Swinh. Trans. Ent. Soc. 1891, p. 152; Hmpsn. Moths Ind. ii. p. 363.

♂. Head and thorax violaceous grey irrorated with a few brown scales, the vertex of head and tegulæ with slight brown streak; fore tibiæ ferruginous, the tarsi black-brown ringed with white; abdomen pale brown with slight whitish segmental lines, the claspers fringed with rufous hair, the ventral surface whitish except towards extremity. Fore wing violaceous whitish irrorated

Fig. 265.—*Pterogonia episcopalis*, ♂. ½.

with a few black-brown scales, the antemedial costal area tinged with rufous, the area to beyond the cell except below vein 1 with numerous striæ which are rufous on costal area, blackish along median nervure and in and beyond end of cell; a white subbasal line defined on outer side by rufous from costa to submedian fold; antemedial line indistinct, whitish, defined on outer side by blackish to vein 1, oblique to below vein 1, then erect, angled outwards below costa and at median nervure and inwards at submedian fold; a conical silvery patch at end of cell defined by rufous, and with small silver spots defined by rufous beyond its extremity at angles of cell and a small black spot below lower angle of cell; slight rufous marks above and below base of vein 7; postmedial line indistinct, whitish defined on outer side by slight rufous spots from vein 6 to 1, somewhat oblique to vein 7 and incurved at discal fold and in submedian interspace; a subterminal series of small black spots except towards apex and tornus with faint silvery marks before them; cilia dark brown at tips. Hind wing whitish tinged with brown, the terminal area broadly fuscous, narrowing to tornus; cilia white except towards apex and tornus. Underside

of fore wing fuscous except inner area and termen which are white, a white discoidal lunule; hind wing white with subterminal fuscous band from apex to termen at vein 1.

♀. Fore wing more uniformly tinged with rufous, the antemedial line oblique throughout and sinuous below submedian fold, the small spots at angles of cell conjoined to the silver patch.

Ab. 1. Fore wing with the discoidal patch round and not defined by rufous.—Nágas.

Hab. Assam, Nágas; Madras, Nilgiris (*Lindsay*), 1 ♀ type; Travancore, Pirmád (*Imray*), 1 ♂; Singapore (*Ridley*), 1 ♂; Borneo, 1 ♀; Br. N. Guinea, Mt. Kebea (*Pratt*), 5 ♂, Mafalu (*Pratt*), 1 ♂. *Exp.* 46–54 millim.

B. Fore wing of male with the neuration normal; claspers normal.

a. Fore wing pale flesh colour ..... *striatura.*
b. Fore wing red-brown tinged with olive ..... *nerissa.*

7102. Pterogonia striatura.

Doranaga striatura, Moore, Lep. Ceyl. iii. p. 553, pl. 214. f. 11 (1887); Hmpsn. Moths Ind. ii. p. 363.

♂. Head and thorax whitish tinged with brown and irrorated with a few black scales; palpi except in front and frontal tuft blackish; fore legs suffused with brown; abdomen brownish white with slight white segmental lines. Fore wing white tinged with flesh colour and with numerous pale rufous striæ, the costal edge brown; subbasal line white defined on outer side by brown, from costa to vein 1; antemedial line white defined on outer side by dark brown, oblique, incurved in submedian interspace, a short

Fig. 266.—*Pterogonia striatura*, ♂. ½.

dark streak from it on base of vein 2; small black spots at the angles of cell; postmedial line white slightly defined on outer side by dark brown, incurved to vein 5, excurved at middle and incurved in submedian interspace; a series of small subterminal black spots between vein 5 and submedian fold. Hind wing white tinged with brown, the terminal area broadly suffused with fuscous; cilia ochreous white. Underside of fore wing suffused with fuscous except the inner and terminal areas which are white, a white

discoidal spot; hind wing white with diffused brownish subterminal shade.

Hab. Ceylon, Matale, 1 ♂ type, Pundaloya (*Green*), 1 ♂. *Exp.* 38 millim.

7103. Pterogonia nerissa. (Plate CXCI. fig. 10.)

Pterogonia nerissa, Swinh. A. M. N. H. (7) ix. p. 83 (1902).

♂. Head and thorax dark brown mixed with grey, the outer part of tegulæ and patagia reddish brown; pectus and legs whitish mixed with brown, the tarsi blackish ringed with white; abdomen grey-brown, ventrally whitish except towards extremity. Fore wing red-brown with an olive tinge irrorated with a few black scales, which on inner area are whitish tipped with black, numerous slight silvery grey striæ more prominent at costa where there are brown striæ between them; traces of a curved minutely waved dark antemedial line; small blackish spots at the angles of cell; an oblique silvery white streak from apex to vein 5 with brown striæ on it; slight subterminal black spots above vein 6 and between veins 5 and 1; some silvery white marks striated with brown on termen from apex to vein 5; cilia dark red-brown at tips. Hind wing dark brown, the cilia white at tips from apex to vein 2; the underside with the costal area whitish to beyond middle, the inner area greyish.

Hab. Straits Settlements, Perak, 1 ♂ type; Borneo, Matang (*Shelford*), 1 ♂. *Exp.* 40 millim.

Genus SETOCTENA.

	Type.
Setoctena, Wllgrn. Wien. Ent. Mon. vii. p. 144 (1863)	*ledereri.*
Metaculasta, Butl. P. Z. S. 1898, p. 444	*dives.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to middle of frons and slenderly scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male with fusciculate cilia; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen without crests. Fore wing long and narrow, the costa nearly straight, the apex somewhat produced, the termen obliquely curved; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3 and 5 from near angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to beyond middle.

A. Fore wing with the postmedial line arising from apex.
  a. Fore wing striated with fuscous ..... *dives.*
  b. Fore wing not striated with fuscous ..... *trigramma.*
B. Fore wing with the postmedial line acutely angled outwards below vein 7 where it is met by an oblique dark streak from apex.
  a. Fore wing rufous with numerous pale striæ ..... *patricula.*
  b. Fore wing yellowish streaked with rufous ..... *endoglauca.*
C. Fore wing with the postmedial line excurved below costa... *ledereri.*
D. Fore wing with medial band defined by the slight waved dark ante- and postmedial lines ..... *polla.*

7104. Setoctena dives. (Plate CXCI. fig. 11.)

Metaculasta dives, Butl. P. Z. S. 1898, p. 444.

♀. Head, thorax, and abdomen white tinged with grey. Fore wing greyish with fuscous striæ, the costal area except towards apex golden ochreous, extending to submedian fold towards base, the terminal area golden ochreous except towards apex; an obliquely curved silvery streak from discal fold in cell towards its extremity to submedian fold near base, with faint pale line from it to inner margin angled outwards below vein 1; the extremity of median nervure and bases of veins 5, 4, 3 with slight ochreous white streaks; an obliquely curved silvery white streak from apex to submedian fold below end of cell, continued as a pale line to inner margin before middle; an indistinct oblique dark subterminal line from vein 5 to inner margin. Hind wing white, the termen slightly tinged with ochreous.

Hab. Br. E. Africa, Taveta (*Rogers*), 1 ♀, Voi (*Betton*), 1 ♀ type. *Exp.* 34 millim.

7105. Setoctena trigramma, n. sp. (Plate CXCI. fig. 12.)

♂. Head, thorax, and abdomen grey tinged with brown; the pectus, legs, and ventral surface of abdomen white. Fore wing pale ochreous sparsely irrorated with blackish, the costal edge whitish; the costal area tinged with rufous to the whitish antemedial line, which is very oblique from the cell near upper angle to vein 1 near base, then angled outwards above inner margin; a slight black point at upper angle of cell; a very obliquely curved whitish line from apex to inner margin before middle, the area between the two lines tinged with fuscous on inner half; an obliquely curved fuscous subterminal line arising from apex with the white line; cilia fuscous, whitish at tips. Hind wing semihyaline white, the inner area and termen tinged with brown; cilia yellowish at base.

Hab. Rajputana, Mt. Abu (*Nurse*), 1 ♂ type. *Exp.* 38 millim.

7106. Setoctena patricula.

Maurilia patricula, Hmpsn. Ann. S. Afr. Mus. ii. p. 314 (1902).

Head and thorax grey irrorated with brown; abdomen grey irrorated with brown and tinged with ochreous at sides and extremity. Fore wing rufous tinged with grey, irrorated with a few black scales and thickly striated with whitish, the costal area suffused with rufous to the antemedial line, which is whitish defined on outer side by brown, very obliquely curved from middle of costa to inner margin; two slight black discoidal striæ; postmedial line whitish, oblique from costa to below vein 7, where it is acutely angled and met by an oblique black streak from apex, then very

oblique and defined on outer side by brown; traces of an oblique subterminal series of black spots from the oblique streak to inner margin. Hind wing semihyaline white, the termen tinged with brown, the cilia yellowish.

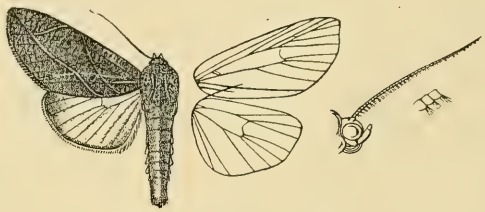


Fig. 267.—*Setoctena patricula*, ♂. ½.

Ab. 1. Head, thorax, and fore wing pale rufous without the grey and brown shades.

Hab. Abyssinia, Atbara R. (*Gerrard*), 1 ♂, 1 ♀; Mashonaland, Salisbury (*Marshall*), 1 ♂ type; Transvaal (*Pead*), 1 ♂. *Exp.* 38-46 millim.

7107. Setoctena endoglauca.

Metaculasta endoglauca, Hmpsn. P. Z. S. 1910, p. 414, pl. xxxvi. f. 20.

♂. Head and thorax grey mixed with white; abdomen ochreous white dorsally tinged with rufous. Fore wing yellowish white, the costal area suffused with rufous to beyond middle, the inner area, and the terminal area slightly, suffused with grey; the subcostal nervure defined by slight rufous streaks on basal half; a rufous streak below base of cell; a very oblique rufous striga from costa before middle to upper angle of cell, and a slight oblique yellowish line from lower angle of cell to inner margin near base; postmedial line rufous and very oblique from costa to vein 6 below apex, where it is met by an oblique fuscous streak from apex, then oblique and somewhat dentate to inner margin before middle; the costal area towards apex with some dark irroration and the veins defined by slight dark streaks; a faint obliquely curved dark subterminal shade arising below apex; cilia brownish. Hind wing ochreous white, the termen tinged with brown.

Hab. N.E. Rhodesia, Chinsali Distr. (*Neave*), 1 ♂ type. *Exp.* 24 millim.

*7108. Setoctena ledereri. (Plate CXCI. fig. 13.)

Setoctena ledereri, Wllgrn. Wien. Ent. Mon. vii. p. 144 (1863); Kirby, Cat. Lep. Het. p. 280.

♂. Head and thorax grey; abdomen ochreous white. Fore wing grey, the medial area with a brownish tinge; antemedial line brown, obliquely curved, from costa just before middle to inner

margin; postmedial line brown, oblique from costa to below vein 7 and inwardly oblique below vein 5. Hind wing semihyaline ochreous white, the terminal area tinged with rufous; cilia yellowish at base.

Hab. Germ. W. Africa, Swakop R., type † ♂ in Mus. Stockholm. *Exp.* 28 millim.

*7109. ? Setoctena polla.

Leocyma polla, Schaus. Lep. S. Leone, p. 35, pl. ii. f. 11 (1903).

Head and tegulæ yellow; thorax and abdomen white faintly tinged with brown. Fore wing silvery white, the termen slightly tinged with brown; a somewhat darker medial band defined by slightly waved dark lines and somewhat oblique from costa to discal fold where it is angled outwards; a dark subterminal shade, somewhat expanding at costa, excurved below vein 7 and at middle and incurved at discal and submedian folds. Hind wing semihyaline white tinged with brown especially towards termen.

Hab. Sierra Leone, type in Am. Mus. Nat. Hist. *Exp.* 24 millim. This species is unknown to me.

Genus **ACONTIA.**

Tye.

Acontia, Ochs. Schmett. Eur. iv. p. 91 (1816), non descr. Treit.
Schmett. Eur. v (3) p. 237 (1826) ..... *malvæ.*
Xanthodes, Guen. Noct. ii. p. 209 (1852) ..... *malvæ.*

Proboscis fully developed; palpi obliquely upturned, rather slenderly scaled, in male typically clothed with downturned hair in front, the 2nd joint reaching to vertex of head, the 3rd moderate; frons smooth, with tuft of hair above; eyes large, round; antennæ of male ciliated; thorax clothed chiefly with scales and without crests; tibiæ fringed with long hair in male; abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen typically evenly curved and slightly crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle: 7, 8 stalked; 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Fore wing of male with the termen somewhat excised below vein 4, the palpi clothed with downturned hair in front.

A. Fore wing of male with a fringe of long upturned hair on vein 1 from base to middle on underside.
a. Hind wing orange-yellow.
a[1]. Fore wing with the antemedial line present..... *emboloscia.*
b[1]. Fore wing with the antemedial line absent ..... *arva.*
b. Hind wing ochreous yellow ..... *transversa.*

7110. **Acontia emboloscia.** (Plate CXCI. fig. 14.)

Acontia emboloscia, Turner, P. Linn. Soc. N. S. W. xxvii. p. 94 (1902).

♂. Head and thorax pale yellow; palpi and frons at sides fiery red; thorax with dorsal and lateral fiery red streaks; fore

and mid tibiæ fringed with fiery red hair; abdomen yellow, tinged with orange-red at base of dorsum. Fore wing yellow irrorated with a very few black scales; the costal edge red-brown; a wedge-shaped red-brown patch from base of median nervure expanding triangularly to termen below apex and above tornus, the veins on it somewhat darker; antemedial line red-brown, oblique from costa to lower angle of cell where it is acutely angled, then inwardly oblique and ending at vein 1; a point at upper angle of cell; postmedial line red-brown, oblique from costa to discal fold where it is acutely angled, then inwardly oblique to middle of inner margin, indistinct on the brown patch; subterminal line obliquely bent outwards below apex, interrupted by the brown patch and oblique and sinuous below it; cilia greyish brown. Hind wing yellow tinged with orange, some brownish on termen between veins 6 and 2; cilia grey-brown from apex to vein 2.

♀. Abdomen and hind wing reddish orange.

Hab. N. Australia (*Bovill*), 1 ♂; Queensland, Townsville (*Dodd*), 2 ♀. *Exp.* ♂ 50, ♀ 40 millim.

*7111. Acontia aroa. (Plate CXCI. fig. 15.)

Acontia aroa, Beth.-Baker, Nov. Zool. xiii. p. 210 (1906).

♂. Head and thorax bright yellow, the latter with dorsal fiery red fascia with brown streak through middle; palpi and sides of frons fiery red; antennæ brownish except at base; shoulders and fore and mid tibiæ bright rufous; abdomen fulvous yellow, the basal crest fiery red, the ventral surface white. Fore wing bright yellow with bright rufous wedge-shaped fascia from base to termen on which it expands from below apex to above tornus; a fiery red streak on inner margin except towards base; a faint oblique dark line from vein 4 near termen to submedian fold beyond middle; cilia fuscous. Hind wing orange-yellow, the termen tinged with brown at middle; cilia brown with a fine yellow line at base.

Hab. Br. New Guinea, Aroa R., type † ♂ in Coll. Bethune-Baker. *Exp.* 44 millim.

7112. Acontia transversa.

Xanthodes transversa, Guen. Noct. ii. p. 211, pl. 10. f, 5 (1852); Hmpsn. Moths Ind. ii. p. 323.
Xanthodes migrator, Wlk. xii. 779 (1857).
Acontia flava, Moore, Lep. Ceyl. iii. p. 42, pl. 149. ff. 2, 2 *a* (nec Fabr.).
Trileuca dentalis, Smith, Trans. Am. Ent. Soc. xviii. p. 123 (1891); Dyar, Cat. Lep. N. Am. p. 182.

Head and thorax yellow; palpi and frons at sides red-brown; vertex of thorax with a rufous streak, the patagia with a few blackish scales; tibiæ fringed with rufous hair; abdomen yellow tinged with rufous. Fore wing yellow irrorated with a few black-

brown scales; a triangular red-brown patch from lower angle of cell to termen just below apex and above tornus, sometimes extending along median nervure as a wedge-shaped fascia to base; antemedial line rufous, oblique from costa to median nervure where it is acutely angled to near lower angle of cell, then inwardly oblique; a rufous striga on upper discocellular; postmedial line red-brown, oblique from costa to discal fold where it is acutely angled, then inwardly oblique; subterminal line red-brown, angled outwards at vein 7, then obliquely incurved. Hind wing ochreous yellow, the termen and cilia brownish between veins 6 and 2; the underside with the costal area sparsely irrorated with blackish scales and sometimes with a blackish postmedial bar from costa to discal fold.

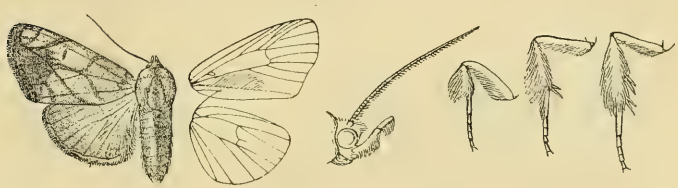


Fig. 268.—*Acontia transversa*, ♂. ½.

Hab. Japan, Hakone (*Leech*), 1 ♀; Loochoo Is. (*Pryer*), 1 ♂; Centr. China, Fokien, Sam-sah (*de la Garde*), 1 ♀, Shanghai, 1 ♀, Ichang (*Mrs. Pratt*), 1 ♂, 1 ♀; W. China, Omei-Shán, 1 ♂; Formosa (*Hobson*), 1 ♀; Punjab, Kulu, Sultanpur (*G. Young*), 1 ♂, Almorah (*Boys*), 1 ♀, Dharmsála (*Hocking*), 1 ♂, 1 ♀; Assam, Sylhet, 1 ♂; Bombay, Kanara, 1 ♂; Madras, Nilgiris (*Hampson*), 1 ♂, 1 ♀; Travancore, Pirmád (*Mrs. Imray*), 1 ♀; Ceylon, 1 ♀; Burma, Moulmein (*Clerk*), 1 ♀; Andamans, 1 ♀; Nicobars (*Rogers*), 1 ♂, 1 ♀; Singapore (*Ridley*), 1 ♂, 1 ♀; Pulo Laut (*Doherty*), 2 ♀; Philippines, Tay-tai (*Betton*), 1 ♀; Java (*Horsfield*), 3 ♂, 3 ♀ type; D'Entrecasteaux Is., Fergusson I. (*Meek*), 1 ♂, 1 ♀; New Britain, Duke of York I. (*Mathew*), 1 ♀; Solomons, Alu (*Woodford*), 1 ♀; New Hebrides (*Mathew*), 1 ♀; N. Australia, Port Darwin (*Buckland*), 1 ♂; Queensland (*Lyell*), 1 ♂, Moreton Bay (*Diggles*), 1 ♂, 1 ♀ type *migrator*. *Exp.* 34–48 millim.

The type of *dentalis* probably came from the Philippines, not Texas.

Larva. Pale green with a few very fine hairs; subdorsal, lateral, and sublateral series of white spots, the subdorsal series with an intervening yellow spot on each somite; 1st two pairs of prolegs absent. *Pupa.* Pale pinkish red.

B. Fore wing of male without fringe of hair on vein 1 on underside.

a. Fore wing of male with the termen strongly excised above vein 2.

7113. Acontia amata.

Xanthodes amata, Wlk. xxxiii. 778 (1865).
Xanthodes adunca, Feld. Reis. Nov. pl. 108. f. 39 (1874).

Head and tegulæ white, the rest of thorax very pale yellow; palpi at tips and sides of frons bright rufous; pectus white, the fore and mid tibiæ rufous; abdomen white with pale rufous dorsal segmental lines. Fore wing very pale yellow; small rufous medial and postmedial spots below the costa; a terminal olive-green line except at apex; cilia olive-brown mixed with leaden grey. Hind wing semihyaline white, the termen ochreous except towards

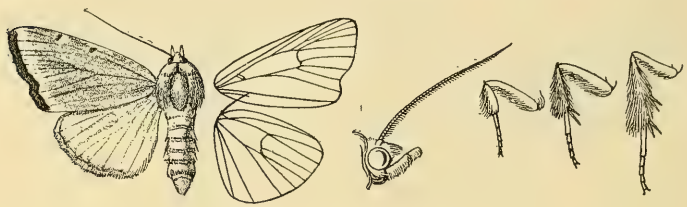


Fig. 269.—*Acontia amata*, ♂. ½.

tornus; the cilia tinged with grey-brown from apex to vein 2; the underside with the apical area irrorated with a few black scales.

Hab. Queensland, Cape York (*Higgins*), 1 ♂, Brisbane (*Turner*), 1 ♀; N. Australia (*Bovill*), 1 ♂, Port Darwin (*Buckland*), 1 ♀, Alexandria (*Stalker*), 1 ♂; W. Australia (*Diggles*), 1 ♂ type. *Exp.* 38–48 millim.

b. Fore wing of male with the termen not excised above vein 2.
*a*¹ Hind wing uniform orange-yellow ..... *intersepta*.
*b*¹. Hind wing with the basal area white ..... *congenita*.

7114. Acontia intersepta.

Xanthodes intersepta, Guen. Noct. ii. p. 212 (1852); Moore, Lep. Ceyl. iii. p. 42, pl. 149. f. 3; Hmpsn. Moths Ind. ii. p. 323.
Xanthodes duplicata, Wlk. xxxiii. 778 (1865).
Xanthodes diffusa, Snell. Tijd. v. Ent. xxiii. p. 53, pl. 4. f. 8 (1880).
Acontia imitata, Moore, Lep. Ceyl. iii. p. 42, pl. 149. f. 4 (1884).

Head and tegulæ white tinged with yellow; thorax yellow; palpi except at base and frons red-brown; fore tibiæ rufous; pectus white; abdomen orange-yellow. Fore wing yellow irrorated with a few black scales: a wedge-shaped rufous patch from median nervure before middle to termen on which it extends from apex to vein 3; antemedial rufous points on subcostal nervure and vein 1; a point at upper angle of cell; postmedial line represented by a

striga below costa and point on vein 1, the subterminal line by an oblique striga below costa and striga from lower edge of the patch connected with termen by a streak below vein 3; an oblique black striga just below apex; the termen rufous; cilia grey-brown with a slight waved dark line through them. Hind wing orange; the cilia grey-brown from apex to vein 2; the underside with a few black scales on apical area.

Fig. 270.—*Acontia intersepta*, ♂. ½.

Ab. 1. *imitata*. Fore wing with the wedge-shaped patch reduced to an oblique fascia from termen below apex to median nervure at origin of vein 2, the other markings often more or less reduced.

Hab. Formosa, 1 ♀; Punjab (*James*), 1 ♀, Kangra (*Hocking*), 1 ♂; Bengal, Calcutta, 1 ♀; Ceylon, 1 ♀ type *imitata*; Burma, Moulmein (*Clerk*), 2 ♀; Andamans, 5 ♀; Nicobars, 1 ♂; Siam, type † *duplicata* in Mus. Oxon.; Philippines, Luzon, San Fernando (*McGregor*), 1 ♀; Java (*Horsfield*), 1 ♀; Celebes. *Exp.* 34–50 millim.

7115. **Acontia congenita**, n. sp. (Plate CXCI. fig. 16.)

Head and base of tegulæ white, the rest of thorax yellow; palpi except at base and in front rufous; pectus white; fore and mid tibiæ rufous; abdomen reddish ochreous, the base and ventral surface white, slight dorsal rufous segmental lines. Fore wing yellow irrorated with a few black scales; a broad diffused oblique rufous fascia from termen below apex to median nervure at origin of vein 2; traces of rufous antemedial points on subcostal nervure and vein 1; a point at upper angle of cell and postmedial points below costa and in submedian fold; a subterminal point below costa; the termen rufous; cilia grey-brown with a slight waved dark line through them. Hind wing orange-yellow, the basal area semihyaline white; cilia brown at middle; the underside white, the costal area and termen to vein 2 suffused with orange-yellow, the costal area irrorated with a few black scales.

Ab. 1. Fore wing with the markings almost obsolete.

Hab. N. Australia, Alexandria (*Stalker*), 1 ♂, 1 ♀ type; Queensland, Cooktown (*Lyell*), 1 ♂; Fiji, Mango I. (*Matthew*), 1 ♂. *Exp.* 42–46 millim.

Sect. II. Fore wing of male with the termen evenly curved.

A. Palpi of male clothed with downturned hair in front.

7116. Acontia malvæ.

Noctua malvæ, Esp. Schmett. iv. 2. p. 63, pl. 195. f. 4 (1796); Hübn. Eur. Schmett., Noct. f. 358; Dup. Lép. Fr. Suppl. iii. p. 533, pl. 45. f. 2; Frr. Neue Beitr. pl. 149. f. 4; Herr.-Schäff. Eur. Schmett., Noct. f. 221; Mill. Icones, ii. pl. 84. ff. 3–7; Hmpsn. Moths Ind. ii. p. 322; Staud. Cat. Lep. pal. p. 224.
Xanthodes stramen, Guen. Noct. ii. p. 210 (1852).
Xanthia imparata, Wlk. x. 467 (1856).
Xanthodes impellens, Wlk. xv. 1752 (1858).
Xanthodes inefficiens, Wlk. xv. 1752 (1858).

♂. Head white; thorax pale yellow; palpi, frons, antennæ, fore and mid tibiæ and tarsi tinged with brown; abdomen white dorsally tinged with ochreous except at base and with rufous dorsal segmental lines. Fore wing yellow irrorated with a few black scales; a brown point at base of costa; an oblique waved rufous antemedial line, excurved below costa and forming a small brown spot on costa; reniform small, oblique elliptical, rufous with slight whitish centre; postmedial line rufous, forming a small brown spot at costa, excurved beyond the cell, then incurved and slightly sinuous and excurved at vein 1; subterminal line slight, excurved below costa, then rather diffused and bent outwards to tornus; two

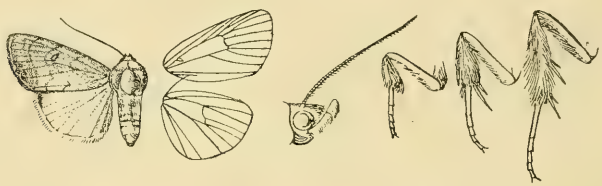


Fig. 271.—*Acontia malvæ*, ♂. ½.

blackish points before termen at veins 4, 3; the termen and cilia red-brown with some blackish and grey between vein 4 and submedian fold. Hind wing semihyaline white, the termen and cilia tinged with ochreous from apex to vein 2; the underside with the costal area sparsely irrorated with black scales.

♀. Fore wing with the reniform absent, a wedge-shaped patch of rufous suffusion from end of cell to termen on which it extends from apex to tornus; hind wing with the termen more suffused with yellow.

Hab. Spain, Catalonia, Frey Coll., Castille, Zeller and Leech Colls.; Centr. Italy; Sicily, Leech Coll.; Algeria; Dalmatia; Socotra, Hadibu Plain (*O.-Grant*), 1 ♂; Br. E. Africa, Taveta (*Rogers*), 1 ♂, 1 ♀; Natal, 1 ♀; Comoro Is., Gloriosa (*Meade-Waldo*), 1 ♂; Formosa, Takow (*Hobson*), 1 ♀; Punjab (*Hearsey*), 1 ♂, 1 ♀ types *inefficiens* and *impellens*, Kulu, Sultanpur (*G. Young*), 1 ♀, Simla (*Harford*), 1 ♀, Almorah (*Boys*), 1 ♂ type

imparata, Jubbulpur, 1 ♀; Bombay, Kutch, 2 ♂, Bombay, 3 ♂, 5 ♀, Poonah (*Swinhoe*), 1 ♀, Canara (*Ward*), 1 ♂, Madras, 1 ♂, Belgaum (*Watson*), 1 ♀; Ceylon, Hambantota (*Pole*), 1 ♂; Burma, Myingyan (*Watson*), 1 ♂. *Exp.* 24–38 millim.

Larva. Kirby, Butt. & Moths Eur. p. 263; Hffm. Raup, p. 140, pl. 36. f. 5.

Whitish with lateral yellow spots; head yellow. Food-plants: *Malva moschata* and *Lavatera olbia*.

B. Palpi of male not clothed with downturned hair in front.
  a. Fore wing with dark fascia on median nervure forking at lower angle of cell ..... *gephyrias.*
  b. Fore wing with rufous streak in basal half of submedian fold *dinarodes.*
  c. Fore wing without streak on basal area ..... *graellsi.*

*7117. Acontia gephyrias. (Plate CXCI. fig. 17.)

Acontia gephyrias, Meyr. Ent. Mo. Mag. xxxviii. p. 175 (1902).

♂. Head and tegulæ white, the thorax ochreous yellow; sides of palpi and frons rufous; pectus and base of legs white; abdomen white, dorsally tinged with brown towards base, the terminal segments with slight rufous bands. Fore wing pale lemon-yellow; a dark brown fascia suffused with white scales from base along median nervure and above vein 4 to near termen, emitting a short fork below at lower angle of cell, and with three short streaks above its extremity from termen becoming short towards apex; the costal edge rufous towards base; a slight rufous postmedial spot below costa and some rufous suffusion above the fascia in end of cell; a small black spot just below apex; cilia dark brown mixed with grey and with a fine dark line at middle. Hind wing semihyaline white; a very slight terminal brown line except towards tornus, the cilia faintly tinged with brown at apex; the underside with the costal area slightly tinged with yellow and irrorated with a few brown scales towards apex.

Hab. Aden (*Muir*), type † ♂ in Mus. Cambridge. *Exp.* 38 millim.

7118. Acontia dinarodes, n. sp. (Plate CXCI. fig. 18.)

♀. Head and thorax pale ochreous yellow; palpi, frons, and fore and mid tibiæ more rufous; abdomen pale ochreous with rufous dorsal segmental bands. Fore wing yellow irrorated with a few black scales; a rufous streak in basal half of submedian fold; a diffused rufous streak in discal fold from just before end of cell to the rufous suffusion on termen; a black point at lower angle of cell and a slight subterminal point below costa; cilia rufous. Hind wing semihyaline white suffused with ochreous yellow except towards base; the underside with the costal area and terminal area to vein 2 tinged with ochreous and sparsely irrorated with blackish scales.

Hab. Br. E. Africa, Nairobi (*Crawshay*), 1 ♀ type. *Exp.* 36 millim.

7119. Acontia graellsi.

Acontia graellsii, Feisth. Ann. Soc. Ent. Fr. vi. p. 300, pl. 12. f. 3 (1837); Dup. Lép. Fr., Suppl. iii. p. 535, pl. 45. f. 3; Mill. Icones. pl. 59. ff. 6, 7; Hmpsn. Moths Ind. ii. p. 324; Staud. Cat. Lep. pal. p. 224.
Xanthodes innocens, Wlk. xv. 1752 (1858).
Xanthodes fimbriata, Wlk. xxxiii. 777 (1865).

Head and base of tegulæ white, the rest of thorax yellow; palpi at tips, frons, and antennæ except at base red-brown; pectus white; fore and mid tibiæ red-brown; abdomen white with slight rufous dorsal segmental lines. Fore wing yellow irrorated with a few black scales; the costal edge rufous towards base; a more or less developed oblique diffused rufous fascia from termen below apex to median nervure at origin of vein 2; more or less prominent rufous antemedial, postmedial, and subterminal rufous points below the costa and a point at upper angle of cell; a red-brown terminal line; cilia grey-brown with a darker line through them. Hind wing semihyaline white, the terminal area and cilia more or less

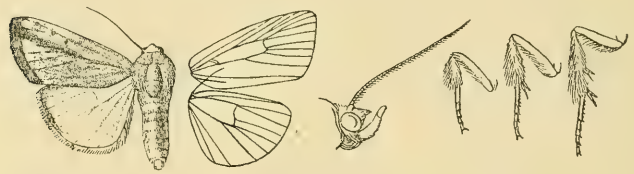


Fig. 272.—*Acontia graellsi*, ♂. ½.

suffused with brownish ochreous from apex to vein 2; the underside with the costal area tinged with brownish ochreous, the apical area irrorated with a few black scales.

Ab. 1. Fore wing with hardly a trace of the rufous markings.

Hab. S. France; Spain, Catalonia, Zeller Coll., Castile, Frey and Leech Colls., Andalusia, Leech Coll.; Sierra Leone (*Foxcroft, Morgan*), 1 ♂, 1 ♀ type *fimbriata*; Gold Coast, Kumasi (*Whiteside*), 1 ♂; N. Nigeria, Minna (*Macfie*), 1 ♀, Borgu, Yelwa Lake (*Migeod*), 1 ♂; Abyssinia, Atbara (*Gerrard*), 1 ♂; Br. E. Africa, Nairobi (*Crawshay*), 1 ♂; Br. C. Africa, Nyasa (*Johnston*), 1 ♂; Mashonaland, Salisbury (*Marshall*), 1 ♂, 1 ♀; Natal, Howich (*Cregoe*), 1 ♀, Estcourt (*Hutchinson*), 1 ♂, 1 ♀, Durban (*Gooch*), 1 ♂; Orange R. Colony, Bloemfontein (*Eckersley*), 1 ♂; Mauritius; Aden (*Yerbury*), 1 ♂, 2 ♀; C. China, Ichang (*Mrs. Pratt*), 1 ♀; Punjab (*Mrs. Hamilton, Hearsey*), 2 ♂, 1 ♀ type *innocens*, Campbellpur (*Yerbury*), 1 ♀, Manpuri, 1 ♀; Sind, 1 ♂; Bombay, Kutch, 1 ♂; Burma, Myingyan (*Watson*), 1 ♂. *Exp.* 34–42 millim.

Larva. Kirby, Butt. & Moths Eur. p. 263; Hffm. Raup. p. 140.

Long and cylindrical; pale yellowish green dotted with black, reddish on dorsum. Food-plant: *Lavatera olbia*.

Genus **LEOCYMA**.

	Type.
Leocyma, Guen. Noct. ii. p. 212 (1852)	*appollinis*.
Thiganusa, Wlk. xxxiii. 979 (1865)	*appollinis*.

Proboscis fully developed; palpi upturned, curved, the 2nd joint reaching to vertex of head and slenderly scaled, the 3rd moderate; frons smooth, with ridge of hair above; eyes large, round; antennæ of male ciliated; thorax clothed with scales and hair mixed and without crests; fore tibiæ of male typically with largely developed tufts of hair, the mid and hind tibiæ moderately fringed with hair; abdomen with some rough hair at base, but without crests. Fore wing with the apex rounded, the termen evenly curved, not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8 shortly stalked; 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from well above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Fore tibiæ of male with greatly developed tufts of hair.

A. Hind wing with the termen not suffused with brown towards apex	*appollinis*.
B. Hind wing with the termen suffused with brown from apex to vein 2	*vates*.

7120. **Leocyma appollinis**.

Leocyma appollinis, Guen. Noct. ii. p. 212 (1852).
Thiganusa euproctisoides, Wlk. xxxiii. 979 (1865).

♂. Head, thorax, and abdomen orange-yellow, the last with traces of rufous dorsal segmental lines; palpi at sides, frons and a patch behind the eyes black; fore and mid tibiæ and tarsi, the

Fig. 273.—*Leocyma appollinis*, ♂. ½.

spurs of hind tibiæ and the tarsi blackish. Fore wing yellow, a small antemedial black spot in submedian fold and a small discoidal spot. Hind wing orange-yellow.

♀. Fore wing without the antemedial black spot.

Hab. Natal, Durban (*Gueinzius*, *Burrows*, *Gooch*, *Leigh*), 4 ♂, 2 ♀ type *euproctisoides*; Madagascar. *Exp.* 36–42 millim.

Larva. Yellowish white with fine interrupted crimson dorsal and subdorsal lines and lateral series of striæ, the 1st somite with dorsal black bar, the 4th, 5th, 6th, 7th, 10th, and 11th somites with double brown bars enclosing a small crimson spot on the subdorsal line; a lateral series of oblique crimson bars; warts

black with single hairs; head spotted and barred with brown; 1st two pairs of prolegs absent. The young larva has the dorsal bars obsolete except on 1st somite where it is double, and the black warts more prominent.

*7121. Leocyma vates.

Leocyma vates, Saalm. Lep. Madag. p. 329, f. 109 (1890).

♀. Pale yellow; palpi with the 2nd joint at sides and frons dark brown; tibiæ and tarsi grey-brown. Fore wing with small black discoidal spot. Hind wing with the termen suffused with fuscous from apex to vein 2.

Hab. Madagascar, Nossi-Bé. *Exp.* 38 millim. This species is unknown to me.

Sect. II. Fore tibiæ of male moderately fringed with hair.

A. Fore wing with round brown spot below middle of cell, the postmedial line angled outwards at vein 6 ..... *discophora.*
B. Fore wing without round brown spot below middle of cell, the terminal area brown with incurved inner edge ..... *camilla.*

7122. Leocyma discophora, n. sp. (Plate CXCI. fig. 19.)

♂. Head and thorax yellow; palpi, frons, antennæ, pectus and legs whitish tinged with brown; abdomen ochreous with slight rufous dorsal segmental lines. Fore wing yellow irrorated with a few black scales, a conical patch of rufous suffusion from beyond end of cell to termen on which it extends from apex to tornus; antemedial line slight, red-brown, oblique from costa to median nervure, then incurved and with round purple-brown patch beyond it in submedian interspace; postmedial line red-brown, oblique to below vein 6, then obliquely incurved; subterminal line red-brown, oblique to below vein 7, then inwardly oblique and bent outwards to tornus; a dark brown line just before termen; cilia dark red-brown. Hind wing pale semihyaline yellow, the termen and cilia tinged with rufous from apex to submedian fold, the cilia dark red-brown at middle; the underside with the costal area except towards base and terminal area to vein 2 irrorated with blackish scales.

Hab. Gold Coast, Accra, 1 ♂ type; Transvaal, Johannesburg (*Cooke*), 1 ♂; Amirantes, Eagle I. (*B.-Fletcher*), 1 ♂. *Exp.* 30–34 millim.

7123. Leocyma camilla.

Xanthodes camilla, Druce, P. Z. S. 1887, p. 686.

♂. Head and thorax yellow; palpi, frons, antennæ, pectus and legs brownish white; abdomen brownish white with slight rufous dorsal segmental lines. Fore wing lemon-yellow; the costal edge

brown towards base; the terminal area reddish brown tinged with purplish fuscous, defined on inner side by a nearly evenly incurved darker line; an indistinct diffused blackish subterminal line, excurved below vein 7 and at middle and bent outwards to tornus. Hind wing yellowish white, the terminal area broadly

Fig. 274.—*Leocyma camilla*, ♂. ½.

suffused with brown, narrowing to tornus; cilia brown with a fine pale line at base, yellowish towards tornus. Underside of fore wing brown with the inner area whitish; hind wing yellowish white with some brown suffusion on termen except towards tornus.

♀. Hind wing wholly suffused with brown on upperside.

Hab. W. Africa (*Dudgeon*), 1 ♂; S. Leone, Free Town (*Austen*), 1 ♀, Port Lokko (*Penny*), 1 ♀; Gold Coast, Bibianaha (*Spurrell*), 1 ♂; S. Nigeria, Sapele (*Sampson*), 1 ♂, Asaba (*Crosse*), 1 ♂; Cameroons (*Rutherford*), 1 ♀. *Exp.* 36–38 millim.

Genus **ARMACTICA**.

	Type.
Armactica, Wlk. xxxiii. 808 (1865)	*columbina*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about vertex of head and rather slenderly scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male minutely ciliated; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from well above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with small blue-centred ocelli on terminal area.	
a. Fore wing without white on inner medial area.	
a^1. Fore wing with the postmedial line excurved to well beyond the small discoidal ocellus; hind wing with the terminal band narrow	*columbina*.
b^1. Fore wing with the postmedial line touching or almost touching the small discoidal ocellus; hind wing with the terminal band broader	*andreusi*.
b. Fore wing with the inner medial area white irrorated with brown	*endoleuca*.
B. Fore wing without blue-centred ocelli on terminal area ...	*conchidia*.

7124. Armactica columbina.

Armactica columbina, Wlk. xxxiii. 808 (1865).

Head and thorax fuscous brown mixed with greyish; pectus yellowish white; tibiæ and tarsi suffused with brown, the tarsi with whitish rings; abdomen orange-yellow, the ventral surface white except at extremity. Fore wing leaden-grey irrorated with large brown scales to the postmedial line, the terminal area suffused with red-brown; antemedial line brown, excurved below costa and slightly incurved below the cell; a small round or

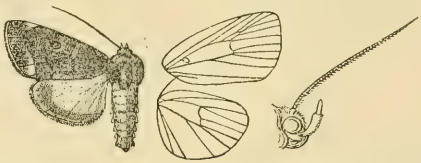


Fig. 275.—*Armactica columbina*, ♂. ½.

elliptical black discoidal spot with two silvery blue points on it; postmedial line brown, excurved from costa to vein 4, then incurved; subterminal line white defined on inner side by red-brown, expanding into a triangular mark at costa, excurved to vein 5, then incurved; a series of small black spots with silvery blue centres from below costa to above vein 2 just before termen; cilia brown with a fine whitish line at base. Hind wing yellow; a rather diffused brown band just before termen; the cilia with patches of brown at apex and middle.

Hab. Queensland, Moreton Bay (*Diggles*), 1 ♂ type, Brisbane (*Turner*), 1 ♂, 2 ♀; N. Australia, Port Darwin (*Buckland*), 1 ♀; W. Australia, Sherlock R. (*Clements*), 3 ♂, 1 ♀. *Exp.* 30–40 millim.

7125. Armactica andreusi, n. sp (Plate CXCI. fig. 21.)

Head and thorax fuscous brown mixed with grey; pectus whitish; tibiæ and tarsi suffused with brown, the tarsi ringed with whitish; abdomen orange-yellow, some brown at extremity of anal tuft, the ventral surface whitish except towards extremity. Fore wing leaden-grey irrorated with large brown scales to the postmedial line, the termen tinged with red-brown; an ill-defined curved dark antemedial line; a small black discoidal spot with silvery-blue centre, touching or almost touching the rather diffused dark postmedial line which is excurved from costa to vein 4, then incurved; subterminal line slight, defined on outer side by a wedge-shaped white patch from costa and by some white from below vein 4 to inner margin, excurved to vein 5, then incurved; black spots with silvery-blue centres just before termen below veins 8, 4, 3; cilia brown, Hind wing yellow, the terminal area

suffused with brown; cilia yellow with a brown line through them from apex to submedian fold; the underside with the costal area irrorated with brown.

Hab. Christmas I. (*Andrews*), 2 ♂, 6 ♀ type. *Exp.* 30–32 millim.

7126. **Armactica endoleuca**, n. sp. (Plate CXCI. fig. 20.)

♀. Head and thorax fuscous black mixed with white; pectus white; tibiæ and tarsi suffused with fuscous brown, the tarsi ringed with white; abdomen yellowish white irrorated with brown and with slight orange segmental lines, the ventral surface white. Fore wing purplish grey, the costal half suffused and irrorated with fuscous black to the postmedial line, the inner half white with a few fuscous scales on it; postmedial line blackish, strongly excurved from costa to submedian fold, then incurved; a small round black discoidal spot with silvery blue point on it; postmedial line black, excurved from costa to vein 4, then incurved; subterminal line slight with wedge-shaped white patch on its outer side from costa and white patch from below vein 4 to inner margin; a series of small black spots with silvery blue centres just before termen from below costa to below vein 3; cilia white at tips towards tornus. Hind wing yellowish white, the terminal area suffused with fuscous brown; cilia yellowish white with a brown line through them from apex to vein 2; the underside with the costal area irrorated with brown.

Hab. W. Australia, Sherlock R. (*Clements*), 1 ♀ type. *Exp.* 24 millim.

7127. **Armactica conchidia.** (Plate CXCI. figs. 22 ♂, 23 ♀.)

Acontia conchidia, Butl. Trans. Ent. Soc. 1886, p. 402, ♂.
Westermannia ocellata, Lucas, Pr. Linn. Soc. N. S. W. (2) viii. p. 145 (1894), ♀.
Caradrina peltaloma, Lower, Pr. Linn. Soc. N. S. W. (2) xxv. p. 32 (1900), ♀.

♂. Head and thorax pure white; palpi except in front towards base, frons, and antennæ except at base fuscous brown; legs suffused with fuscous brown, the tarsi ringed with white; abdomen white dorsally tinged with rufous and with sublateral series of blackish spots. Fore wing pure white; small triangular blackish subbasal and antemedial spots on costa; a black point in middle of cell; reniform slightly defined by black, narrow, a slightly waved and obliquely curved blackish line from its inner edge to inner margin, the area between the reniform and medial line and the postmedial line brown tinged with grey and with patches of black suffusion; postmedial line with small triangular black spot at costa, then interrupted, oblique to vein 6, excurved to vein 4, then strongly incurved and sinuous; terminal area suffused with brown, the subterminal line white, excurved below costa and diffused at

costa and towards tornus; a terminal series of small black spots with white striæ beyond them at base of cilia, which are brown with a dark line through them. Hind wing semihyaline ochreous white, the veins and terminal area suffused with brown; cilia ochreous white with some brownish spots towards apex; the underside with the costal area irrorated with brown.

♀. Head, thorax, and fore wing strongly irrorated with brown, the last with the point in cell and reniform absent, the dark area before the postmedial line reduced to a conical patch from vein 2 to inner margin.

Hab. Queensland, Peak Down, 1 ♂ type, Brisbane (*Turner*), 3 ♀; W. Australia, Sherlock R. (*Clements*), 2 ♂, 4 ♀. *Exp.* 26–32 millim. Type † *ocellata* in Coll. Lucas.

ADDENDA AND CORRIGENDA.

6237 *a*. **Eutelia poliochroa**, n. sp. (Plate CXCI. fig. 24.)

♀. Head, thorax, and abdomen white mixed with some brown; palpi blackish at base; antennæ blackish; tibiæ and spurs with black bands; abdomen with lateral blackish marks on 3rd and 4th segments and subventral black points on medial segments. Fore wing white slightly tinged and irrorated with brown; a curved white subbasal line from costa to submedian fold with brown patch beyond it on costa; antemedial line brownish, excurved in cell; orbicular a small round white spot; reniform a D-shaped white mark with some brownish in centre; medial line brown, oblique from costa to reniform, then inwardly oblique and sinuous; postmedial line double, brown filled in with white, oblique from costa to vein 6, then incurved, oblique and dentate below vein 4; a brown patch on postmedial part of costa with some white points on the costa; subterminal line white defined on each side by brown, sinuous towards costa, then waved, angled inwards at discal fold and with oblique brown mark on its inner side; a series of black points just before termen; cilia brown. Hind wing white suffused with brown; a rather diffused brown medial line; postmedial line double, brown filled in with whitish, oblique and minutely waved from below costa to inner margin near tornus; an irregularly waved white subterminal line; a series of black points just before termen; cilia brown. Underside of both wings with some red suffusion on discal areas; fore wing with strong black postmedial line, oblique towards costa on which there is a white and black patch beyond it, and inwardly oblique below vein 4; hind wing with two black discoidal striæ, rather diffused curved medial line, and double waved black postmedial line.

Hab. Gold Coast, Bibianaha (*Spurrell*), 1 ♀ type. *Exp.* 26 millim.

*6240 *a*. **Eutelia adoxodes**. (Plate CXCI. fig. 32.)

Eutelia adoxodes, Beth.-Baker, A.M.N.H. (8) viii. p. 526 (1911).

♀. Head, thorax, and abdomen greyish brown; palpi dark brown with the extremity of 2nd joint whitish; tarsi dark brown ringed with white. Fore wing grey-brown slightly irrorated with dark brown; traces of a sinuous dark antemedial line; reniform indistinct, small, whitish irrorated with brown; an obscure blackish line from lower angle of cell to inner margin; postmedial line very indistinct, dark, excurved to vein 4, then incurved and dentate; a conical blackish patch with two white points on costa on costal area before the very indistinct waved greyish subterminal line, a small dark spot on it below vein 4; a terminal series of minute

black lunules. Hind wing grey-brown with two faint whitish bars on tornal area; a waved dark terminal line; cilia reddish brown, whitish at base; the underside whitish irrorated and suffused with brown, two postmedial and a subterminal series of black points on the veins; the terminal line expanding into small spots in the interspaces.

Hab. N. Angola, N'Dalla Tando (*Ansorge*), type † ♀ in Coll. Bethune-Baker. *Exp.* 32 millim.

6242 *a*. **Eutelia glaucocycla**, n. sp. (Plate CXCI. fig. 25.)

♀. Head and thorax grey, the latter with a brown dorsal stripe; palpi black at base; antennæ black; legs black-brown, the tarsi ringed with white; abdomen brown, a dorsal stripe defined at side by grey-green, the ventral surface black-brown, grey at base. Fore wing with the basal and costal areas grey-white tinged with green and with slight dark irroration, the rest of wing suffused with purplish fuscous; a slight oblique brown subbasal striga from costa; a small antemedial black spot on costa and double oblique black line filled in with brown from discal fold to inner margin; orbicular and reniform with pale green centres and white annuli defined by black, the former small, round, the latter elliptical; postmedial line double, black filled in with whitish, oblique to vein 6, then incurved to vein 4, then strongly dentate and inwardly oblique to submedian fold, some slight white and dark streaks beyond it on costa; subterminal line creamy white defined on inner side by slight dentate white marks, forming a diffused patch below costa, angled inwards at discal fold and ending at tornus; a terminal series of minute black lunules. Hind wing with the basal half whitish tinged with fuscous, the terminal half purplish fuscous; a whitish subterminal line from vein 4 to tornus; cilia whitish chequered with red-brown; the underside whitish irrorated with brown, a black discoidal lunule, minutely dentate postmedial line, double, rather diffused waved subterminal line, and terminal series of minute black lunules.

Hab. Rhodesia, Victoria Falls, 1 ♀ type. *Exp.* 24 millim.

*6247 *a*. **Eutelia malanga.** (Plate CXCI. fig. 33.)

Eutelia malanga, Beth.-Baker, A. M. N. H. (8) viii. p. 526 (1911).

♂. Head, thorax, and abdomen whitish mixed with brown and some blackish; palpi white at tips; antennæ brown. Fore wing whitish suffused with brown, the postmedial area from vein 5 to inner margin and the terminal area white; reniform with white annulus, small, an oblique diffused black fascia from its inner edge to inner margin near base, and a curved fascia from its outer edge to termen at vein 3, somewhat broader towards termen; traces of two medial lines on inner area; the white postmedial area produced to the subterminal line between veins 4, 3; some whitish

points on costa towards apex; subterminal line defining the inner edge of the white terminal area, waved, incurved below vein 3; a terminal series of small black lunules. Hind wing whitish suffused with brown; a dark terminal line and white line at base of cilia; the underside whiter with a blackish discoidal spot and traces of a waved subterminal line.

Hab. Portuguese W. Africa, Malanga, type † ♂ in Coll. Bethune-Baker. *Exp.* 28 millim.

6351. **Pæctes lunodes** insert (syn.)

Ingura burseræ, Dyar, Pr. Ent. Soc. Wash. iv. p. 455 (1901); id. N. Am. Lep. p. 203.

Larva. Dyar, Proc. U.S. Nat. Mus. xxiii. p. 271.

Translucent green with rather numerous yellow dots; a subdorsal line from somite 3 to anal plate; a stigmatal line from somite 2 to 12; spiracles reddish; tubercles small, the setæ pale; cervical shield with six tubercles, the two anterior ones black; tubercle iv on somites 7 to 10 placed below the spiracles in line with tubercle v on somite 11, and below the spiracle on somite 12; the shields not cornified; head soft green, the ocelli black, five in a semicircle and one below and behind the antennæ, the third largest. Food-plant: *Bursera gummifera*.

*6406 *a*. **Gigantoceras adoxodes.** (Plate CXCI. fig. 34.)

Gigantoceras adoxodes, Beth.-Baker, A. M. N. H. (8) viii. p. 527 (1911).

♀. Head, thorax, and abdomen whitish mixed with brown; tarsi blackish ringed with white. Fore wing whitish suffused with red-brown and irrorated with black; an indistinct curved black subbasal line from costa to vein 1; antemedial line indistinctly double, blackish, curved and slightly waved; two black discoidal points with a dark patch above them on costa; postmedial line very indistinctly double and irregularly waved, produced to black and white points on veins 4, 3, then oblique; a patch of dark suffusion on apical part of costal area, extending to vein 6; subterminal line indistinct, dark and waved on costal area, then almost obsolete to vein 4, then whitish defined on inner side by brown, the veins beyond it with dark streaks; a terminal series of dark lunules defined on inner side by whitish. Hind wing whitish suffused with brown, the terminal area grey-brown; cilia brownish white; the underside with obscure dark discoidal spot.

Hab. N. Angola, N'Dalla Tando (*Ansorye*), type † ♀ in Coll. Bethune-Baker. *Exp.* 34 millim.

6412. **Lophoptera semirufa.**

Lophoptera semirufa, Druce, A. M. N. H. (8) viii. p. 719 (1911).

6484 *a*. **Garella nephelota**, n. sp. (Plate CXCI. fig. 31.)

♂. Head and thorax grey tinged with fuscous; abdomen brown; palpi, pectus, legs, and ventral surface of abdomen white. Fore wing grey irrorated and slightly suffused with fuscous; basal black points below costa and cell followed by a curved subbasal striga from costa; antemedial line bent outwards below costa, then oblique, sinuous, and with black points on its outer edge on the veins; a minute black discoidal lunule; postmedial line with black points on the veins excurved round end of cell, followed by a slight fuscous shade; subterminal line black, excurved below vein 7 and at middle; a terminal series of black points. Hind wing whitish tinged with brown, the termen suffused with brown from apex to vein 2; the underside whiter.

Hab. N. Nigeria, Zungeru (*Macfie*), 1 ♂ type. *Exp.* 22 millim.

p. 276. Genus **GIAURA** insert (syn.)

Type.

Lophotogonia, Beth.-Baker, A. M. N. H. (8) viii. p. 527 (1911)... *bostrycodes.*

*6560 *a*. **Giaura bostrycodes.** (Plate CXC. fig. 33.)

Lophotogonia bostrycodes, Beth.-Baker, A. M. N. H. (8) viii. p. 528 (1911).

♂. Head and thorax white; palpi with the 2nd joint black behind, the 3rd black except at tip; antennæ with black spot on basal joint, the shaft black towards base; patagia tipped with black; pectus and legs tinged with brown, the fore legs black in front, the tarsi black ringed with white; abdomen whitish tinged with brown, the basal crest tipped with black. Fore wing silvery white irrorated with brown, the postmedial and terminal areas suffused with brown except an irregular patch on costal area; the costal edge black towards base; obliquely placed black points at base of costa and in cell; subbasal line black, angled outwards below costa, then oblique to submedian fold; antemedial line almost medial, black, waved, double at inner margin; a slight black point at lower angle of cell; postmedial line black defined on outer side by white, oblique and sinuous to vein 6, with slight streak inwards at discal fold, incurved and waved below vein 4, a blackish patch beyond it on costa; subterminal line black, slightly defined on outer side by white on the darker area, oblique and sinuous towards costa, incurved at discal fold, a black point beyond it on costa; minute black streaks on the extremities of the veins. Hind wing white, the apical area suffused with brown; the tufts of hair at tornus black; the underside with some blackish at base of costa.

Hab. Portuguese W. Africa, Gunnal, type † ♂ in Coll. Bethune-Baker. *Exp.* 22 millim.

6579. **Lamprothripa lactaria** insert (syn.)

Dialithoptera stellata, Wileman, Trans. Ent. Soc. 1911, p. 193, pl. 30. fig. 26.

Japan, Hondo, type † ♂ *stellata* in Coll. Wileman.

*6596 *a*. **Selepa ianthina.** (Plate CXC. fig. 34.)

Plotheia ianthina, Beth.-Baker, A. M. N. H. (8) viii. p. 527 (1911).

♂. Head, thorax, and abdomen whitish suffused with brown; palpi and fore legs darker brown. Fore wing reddish brown tinged with grey on costal half; antemedial line indistinct, double, blackish, slightly bent outwards below costa, then somewhat oblique; a black point in middle of cell and small black discoidal spot; postmedial line very indistinctly double, blackish, excurved below costa and incurved below vein 4, a patch of blue-grey suffusion beyond it on costal area; traces of a dark subterminal line, excurved below vein 7 and at middle; a terminal series of black striæ faintly defined on inner side by whitish. Hind wing semihyaline white, the apex slightly tinged with brown.

Hab. Portuguese W. Africa, Gunnal, type † ♂ in Coll. Bethune-Baker. *Exp.* 22 millim.

6621. **Bryophilopsis melanoleuca** insert

Tarache anomoiota, Beth.-Baker, A. M. N. H. (8) viii. p. 525 (1911); which has priority.

Tarache variegata, Beth.-Baker, A. M. N. H. (8) viii. p. 525 (1911).

Ab. 1. *variegata*. Fore wing with the basal and costal areas more suffused with brown.

Portuguese W. Africa, Gunnal, type † ♀ in Coll. Bethune-Baker, Malanga, type † ♀ *variegata* in Coll. Bethune-Baker.

6698 *a*. **Steniscadia polyodonta.** (Plate CLXXXIX. fig. 33.)

Steniscadia polyodonta, Schaus, ined.

♀. Head and thorax fuscous brown mixed with grey; palpi blackish, the 3rd joint whitish except at tip; pectus and legs whitish, the fore legs black in front; abdomen grey suffused with brown, the basal crest black at tip, the ventral surface white. Fore wing grey suffused with brown and slightly irrorated with blackish; subbasal line black, oblique, minutely dentate, from costa to submedian fold, a black striga beyond it from costa; antemedial line double, blackish, curved, slightly angled outwards below costa, then waved, filled in with whitish towards inner margin; two black discoidal points; postmedial line black slightly defined on outer side by whitish, somewhat bent outwards below costa, then strongly dentate, some blackish before it at inner

margin and beyond it on costa; subterminal line double, brown filled in with whitish, minutely waved; a rather punctiform black terminal line. Hind wing fuscous; the cilia whitish at tips.

Hab. Costa Rica, Sixola R. (*Schaus*), type † ♀ in U.S. Nat. Mus., Guapiles (*Schaus*), 1 ♀. *Exp.* 20 millim.

*7018 *a.* **Hypodeva superba.** (Plate CLXXXIX. fig. 34.)

Acontia superba, Druce, A. M. N. H. (8) viii. p. 148 (1911).

♂. Head, thorax, and abdomen deep chocolate-brown glossed with golden bronze; pectus, legs, and abdomen paler red-brown; genital tuft ochreous and red-brown. Fore wing deep chocolate-brown suffused with brilliant golden bronze and without markings. Hind wing black-brown suffused with brilliant metallic purple especially on terminal half. Underside of both wings silvery grey-brown; fore wing with the disk suffused with fuscous.

Hab. Congo Free State, Up. Kasai Distr. (*Landbeck*), type † ♂ in Coll. Druce. *Exp.* 36 millim.

Species omitted.

Arcyophora clathrimacula, Strand, Archiv f. Naturg. lxxv. 1, p. 380 (1909) ..... Zambesi.
„ *piperitella*, Strand, Archiv f. Naturg. lxxv. 1, p. 380 (1909) ..... Zambesi.
Brada curvilinea, Staud. Rom. Mém. vi. p. 553, pl. 9. f. 12 (1892).
? *Acronyctinæ* gen. *Elydna* ..... Amurland.
Hylophila buddhæ, Alph. Rom. Mém. ix. p. 132, pl. ix. f. 8 (1897).
? *Geometridæ* ..... China.
Pterogonia excisa, Pag. Jahrb. Nass. Ver. li. p. 196 (1898). Sumba.

ALPHABETICAL INDEX.

[Synonyms are printed in *italics*.]

abbreviata (*Leucania*), 616.
abbreviata (Lophoptera), 180.
abbreviata (Nertobriga), 616.
abebœa (Calathusa), 381.
abebœa (*Corula*), 381.
ablatrix (Eutelia), 25.
ablatrix (*Penicillaria*), 25.
abrostolella (*Subrita*), 124.
abrostoloides (*Ingura*), 127, 131.
abrostoloides (Pæctes), 127.
abscondens (Eutelia), 22.
abscondens (*Penicillaria*), 22.
abseuzalis (Casandria), 356.
abseuzalis (*Motya*), 356.
abstrusa (*Sarrothripa*), 275.
abstrusa (Sarrothripus), 275.
Acachmena, 589.
accipiens (Blenina), 421.
achine (*Bocana*), 397.
achine (Labanda), 397.
acisalis (Gyrtona), 211.
acisalis (*Nephopteryx*), 211.
Acontia, 653.
Acontianæ, 455.
Acripia, 590.
acronyctella (*Pardasena*), 247.
acronyctoides (Barasa), 389.
acronyctoides (*Hisbanda*), 382.
acuda (*Gyrtona*), 194.
acuda (Lophoptera), 194.
acutangula (Neaxestis), 639.
acutangula (Pæctes), 126.
acypera (*Carea*), 587.
acypera (Orthocraspis), 587.
acypera (*Tyana*), 493.494.
adoratrix (*Eurhipia*), 52.
adoratrix (Eutelia), 52.
adoxodes (Eutelia), 667.
adoxodes (Gigantoceras), 669.
adulatrix (Eutelia), 47.
adulatrix (*Noctua*), 47.
adunca (*Xanthodes*), 656.
Ægilia, 146.
ænescens (Selepa), 299.
æquilinea (*Steiria*), 154.
Æschradia, 378.
agrapha (Vestermannia), 609.
agrapha (*Westermannia*), 609.
Aiteta, 526.
albescens (*Magasena*), 631.
albescens (Pæctes), 139.
albescens (Stictothripa), 452.
albiapicata (*Eutelia*), 78.
albiapicata (Phlegetonia), 78.
albibasis (Metaleptina), 621.
albicans (Lophoptera), 203.
albicans (Nigramma), 203.
albiceps (*Eutelia*), 78.
albiceps (Phlegetonia), 78.
albicomma (*Eutelia*), 75.
albicosta (Aiteta), 531.
albicosta (*Capotena*), 531.
albida (Aquis), 387.
albida (*Bantana*), 387.
albidisca (*Eutelia*), 92.
albidisca (Marathyssa), 92.
albifascia (Gyrtonides), 453.
albifera (Trogobriga), 616.
albigrisea (Negeta), 629.
albigrisea (*Westermannia*), 629.
albilinea (Metaleptina), 622.
albiluna (Eutelia), 40.
albipicta (Carea), 561.
albipuncta (Stictoptera), 169.
albirivula (Maurilia), 571.
albirufa (Carea), 559.
albisecta (Eutelia), 26.
albisecta (Nanaguna), 254.
albistriata (*Heliothis*), 437.
albivitta (*Othora*), 305.
albodentata (*Gyrtona*), 198.
albomaculata (Anigræa), 94.
albomaculata (*Eutelia*), 94.
albonotata (Apothripa), 250.

albonotata (*Clettharra*), 250.
albopurpurea (Carea), 560.
albosparsa (*Aquis*), 386.
albotecta (*Othora*), 305.
albotessellata (*Capotena*), 530.
albulalis (Characoma), 232.
aleuca (Lophoptera), 178.
aleuca (Odontodes), 144.
alopha (Barasa), 391.
alopha (Dilophothripa), 241.
Alotsa, 15.
alternans (Chlumetia), 66.
alutacea (*Stictoptera*), 180.
amabilis (Blenina), 421.
amabilis (*Labanda*), 421.
Amaloptera, 369.
amata (Acontia), 656.
amata (*Xanthodes*), 656.
amatrix (Eutelia), 49.
ameria (*Polia*), 333.
ameria (Poliothripa), 333.
amplipennis (Casandria), 353.
Amrella, 401,
anæmia (Stictoptera), 151.
anæmica (Microzada), 578.
anchorita (Vestermannia), 609.
anchorita (*Westermannia*), 609.
Andrapha, 224.
andreusi (Armactica), 665.
angulata (*Ægilia*), 97.
angulifera (*Bankia*), 645.
angulipennis (*Amrella*), 407.
angulipennis (Blenina), 407.
angusta (*Lophoptera*), 210.
angustipennis (Marathyssa), 90.
angustipennis (*Schazama*), 90.
Anigræa, 93.
anisoptera (*Stictoptera*), 149.
annæ (Carea), 544.
annulata (*Hyperæschra*), 325.
annulata (Triorbis), 325.
annulifera (*Earias*), 500.
anomoiota (*Tarache*), 671.
antemarginata (Stictoptera), 161.
anthophilana (*Earias*), 502.
anthyalus (*Stictoptera*), 189.
Anuga, 102.
Aon, 108.
aperta (Iscadia), 358, 363, 366.
Aphusia, 496.
apicalis (*Calpe*), 644.
apicalis (*Clettharra*), 280.
apicalis (*Doranaga*), 614.
apicalis (Giaura), 280.
apicifascia (*Eutelia*), 76.
apicifascia (Phlegetonia), 76.
Apothripa, 249.
appollinis (Leocyma), 661.
approximans (Negeta), 625.
approximata (Eutelia), 37.
apriformis (Aiteta), 533.
apriformis (*Capotena*), 533.
Aquis, 385.
aquisoides (Aquis), 386.
aquisoides (*Nanaguna*), 386.
Arachnognatha, 321.
aræa (Casandria), 359.
aræogramma (Vestermannia), 610.
aræogramma (*Westermannia*), 610.
arcigera (*Ingura*) 130.
arcigera (Pæctes), 130.
arcuata (Casandria), 357.
arcuata (Gyrtona), 207.
arcuata (Maurilia), 574.
arcuata (*Sadarsa*), 207.
arcuata (*Xanthodes*), 574.
arcuosa (Lamprothripa), 290.
arcuosa (*Sarrothripa*), 290.
Arcyophora, 642.
areusa (Pæctes), 138.
areusa (*Penicillaria*), 138.
argentata (Gabala), 471.
argentata (Vestermannia), 604.
argentata (*Westermannia*), 604.
argentea (Ariolica), 489.
argentea (*Chionomera*), 489.
argentea (Elæognatha), 372.
argentea (*Libunca*), 335.
argentea (Pucialia), 335.
argentea (Vestermannia), 607.
argentea (*Westermannia*), 607.
argyritis (Elæognatha), 373.
argyroleuca (Elæognatha), 371.
argyroplaga (Titulcia), 483.
argyroplaga (Vestermannia), 605.
argyroplaga (*Westermannia*), 605.
Argyrothripa, 286.
argyrozona (Leucophanera), 482.
Ariola, 516.
Ariolica, 485.
Armactica, 663.
aroa (Acontia), 654.
aroa (Gadirtha), 347.
aroa (*Sarrothripa*), 273.
aroa (Sarrothripus), 273.
asiatica (*Sarrothripa*), 265.
Asinduma, 292.
Atacira, 15.
atribasalis (Gyrtona), 219.
atrifasciata (*Dendrothripa*), 225.
atrifasciata (Etanna), 225.
atrifera (Stictoptera). 167.
atriflava (Neonegeta), 618.
atrifusa (Sinna), 466.
atripars (Phlegetonia), 84.
atripuncta (Pardasena), 249.
atrotumens (*Ballatha*), 463.
attenuatalis (*Cryptolechia*), 398.
auratrix (Eutelia), 27.
auratrix (*Penicillaria*), 27.
aureiplaga (Bombotelia), 9.
aureiplaga (*Tibiocillaria*), 9.
aureovitta (Triorbis), 324.

auriculata (Blenina), 404.
aurigutta (Pterogonia), 647.
aurigutta (*Thalatta*), 647.
auritincta (*Carea*), 522.
auritincta (Lophocrama), 522.
australis (Baileya), 446.
australis (*Leptina*), 446.
autumnalis (*Diphthera*), 416.
avola (Risoba), 437.
avola (*Sarrothripa*), 274.
avola (Sarrothripus), 274.
Axia, 261.

babooni (*Blenina*), 387.
Bagistana, 251.
Baileya, 444.
Ballatha, 461.
Bantana, 385.
Barasa, 388.
barbata (Hypodeva), 600.
Bariana, 393.
basalis (*Andrapha*), 225.
basalis (*Clettharra*), 225.
basalis (*Clina*), 201.
basalis (Etanna), 225.
basalis (Marathyssa), 89.
basalis (Nanaguna), 255.
basalis (Risobia), 435.
basicunea (Calathusa), 382.
basifascia (*Othora*), 305.
basigerella (Barasa), 392.
basigerella (*Subrita*), 392.
Beara, 581.
bella (Siglophora), 473.
Bessara, 585.
bicolorana (Hylophila), 511.
bicolorana (*Phalæna*), 511.
bifasciata (*Calpe*), 645.
bifascies (*Cryassa*), 81.
bifascies (Phlegetonia), 81.
bilinea (Camptozada), 576.
bilinea (*Cletthara*), 576.
bilineatella (*Subrita*), 265.
binotata (Apothripa), 250.
biplaga (Earias), 501.
bisexualis (Stictoptera), 163.
biviata (Carea), 551.
blandiatrix (*Eurhipia*), 48.
blandiatrix (Eutelia), 48.
blandula (*Eurhipia*), 24.
blandula (Eutelia), 24.
Blenina, 401.
bœopis (*Sarrothripa*), 275.
bœopis (Sarrothripus), 275.
bœota (*Dendrothripa*), 226.
bœota (Microthripa), 226.
bolinoides (*Briarda*), 144.
Bombotelia, 6.
bostrycodes (Giaura), 670.
bostrycodes (*Lophotogonia*), 670.
bothrophora (Arcyophora), 643.
bowkeri (*Eurhipia*), 49.
brachyptera (*Blenina*), 417.
brachytorna (Dilophothripa), 242.
Brada, 526.
breviuscula (Nanaguna), 252.
bryophilina (*Ariola*), 197.
Bryophilopsis, 311.
Bryothripa, 310.
brunnea (Nanaguna), 253.
brunneicosta (*Sarrothripa*), 271.
brunneicosta (Sarrothripus), 271.
brunneipennis (*Stictoptera*), 190.
brunnescens (*Blenina*), 247.
buckleyi (*Iscadia*), 366.
bucleyi (Iscadia), 366.
buddhæ (Hylophila), 672.
bufonia (*Scolopocneme*), 345.
Burdria, 143.
burseræ (Ingura), 140, 669.
buruana (Lophoptera), 192.
buruana (*Stictoptera*), 192.

cacaonis (Elæognatha), 375.
Cacyparis, 461.
Cæcila, 102.
Calathusa, 379.
Calduba, 568.
calena (*Blenina*), 415.
callichlora (Tyana), 492.
callichroma (*Eutelia*), 72.
callichroma (Phlegetonia), 72.
Callingura, 109.
calospila (Sinna), 467.
Calymera, 603.
camilla (Leocyma), 662.
camilla (*Xanthodes*), 662.
camptobasis (*Gyrtona*), 207.
Camptozada, 575.
cana (*Barasa*), 389.
cana (Characoma), 238.
cana (Chlumetia), 67.
cana (*Hypothripa*), 238.
cana (Sarrothripus), 268.
candezei (Gadirtha), 345.
canescens (*Othora*), 305.
canescens (*Phumana*), 106.
canofusa (*Ingura*), 137.
canofusa (Pæctes), 137.
canofusa (*Plotheia*), 304.
Capotena, 526.
caradrinoides (*Sarrothripa*), 389.
carbo (Patæta), 69.
carbo (*Phlegetonia*), 69.
Carea, 542.
Careades, 536.
carniola (Arcyophora), 643.
Casandria, 350.
castanea (*Beara*), 584.
castanea (Gelastocera), 584.
catagrapha (*Cymatophoropsis*), 423.
catagrapha (Gryposoba), 423.
catephiformis (*Eutelia*), 61.
catephioides (Phlegetonia), 74.
caustiplaga (*Eutelia*), 24.
cautabasis (Eutelia), 57.
cebea (Risoba), 435.
cebea (Sarrothripus), 274.
cebeæ (Pæctes), 110.
cebeæ (Phlegetonia), 75.
ceira (Cacyparis), 463.
celsiana (*Chloephora*), 514.
celsiana (Parhylophila), 514.
celtis (Selepa), 298.
Ceparcha, 388.
Cerala, 489.
cerea (*Stictoptera*), 190.
cerussata (Gadirtha), 347.

cerussata (*Scolopocneme*), 347.
cervina (*Briarda*), 573.
ceylusalis (Labanda), 394.
Chaladra, 526.
chalybea (*Gadirtha*), 191.
chalybea (*Gyrtona*), 184.
chalybea (Lophoptera), 191.
chalybsa (Eutelia), 36.
chalybsa (*Gyrtona*), 187.
chalybsa (Lophoptera), 187.
chalybsa (*Penicillaria*), 36.
chamæleon (*Paraxia*), 231.
Chandica, 478.
Characoma, 229.
chinensis (Ariolica), 488.
Chionomera, 485.
chirica (Casandria), 358.
Chloephora, 511.
Chloethripa, 259.
chlora (Risoba), 431.
chlorana (Chloethripa), 260.
chlorana (Earias), 508.
chlorana (*Sarrothripa*), 260.
chlorana (*Tortrix*), 508.
Chloriola, 515.
chlorion (*Earias*), 502.
chlorobasis (Eutelia), 42.
chlorocrota (Negeta), 630.
chlorocrota (*Rhæsena*), 630.
chlorodes (*Earias*), 504.
chlorographa (Pucialia), 337.
chlorograpta (*Gyrtona*), 195.
chlorograpta (Lophoptera), 195.
chloroleuca (Tyana), 495.
chloromela (*Diomea*), 395.
chloromela (Labanda), 395.
chloromelana (*Acontia*), 412.
chloromelana (Blenina), 412.
chloropera (Acripia), 592.
chlorophila (Blenina), 402.
chlorophora (Pæctes), 132.
chlorophyllana (Earias), 509.
Chloroplaga, 596.
chloroplaga (Tortriciforma), 595.
chloroptila (*Eliocræa*), 412.
chlorostigma (Carea), 543.
chlorotica (Casandria), 355.
Chlorozada, 517.
Chlumetia, 63.
Chora, 542.
chromataria (*Earias*), 505.
chrysochlora (Blenina), 401.
chrysochlora (*Eliocræa*), 401.
chrysoplaga (Pæctes), 122.
chrysorrhœa (Dilophothripa), 240.
chrysotermina (*Eutelia*), 26.
Chaduca, 196.
Churia, 593.
Ciasa, 175.
cinctipalpis (Anigræa), 97.
cinctipalpis (*Eutelea*), 97.
cinerascens (Negeta), 626.
cinerascens (*Othora*), 305.
cinerascens (*Periplusia*), 626.
cinereana (*Nycteola*), 265.
circularis (*Ingura*), 122.
circularis (Pæctes), 122.
circulella (Selepa), 303.
circulella (*Subrita*), 303.
cistellatrix (*Eurhipia*), 93.
cistellatrix (Marathyssa), 93.
citrina (Earias), 499.
clara (*Noctua*), 148.
clara (*Sinna*), 468.
clara (Stictoptera), 148.
clathrimaculata (Arcyophora), 672.
Clethrophora, 535.
Clettharina, 287.
Clettharra, 251.
Clina, 196.
clopæa (*Dendrothripa*), 256.
clopæa (Nanaguna), 256.
cœlisigna (Ariola), 516.
cœlisigna (Vestermannia), 611.
cœlisigna (*Vestermannia*), 611.
Collomena, 350.
Colpocheilopteryx, 70.
columba (*Dandaca*), 171.
columba (Stictoptera), 171.
columbiana (*Sarrothripa*), 265.
columbina (Armactica), 664.
cometes (Bryophilopsis), 316.
complexa (*Cœcila*), 106.
concha (Vestermannia), 605.
concha (*Westermannia*), 605.
conchidia (*Acontia*), 665.
conchidia (Armactica), 665.
concisa (*Othora*), 305.
confictella (Titulcia), 484.
confluens (*Minica*), 171.
confluens (Stictoptera), 171.
congenita (Acontia), 657.
conglobalis (*Gyrtona*), 217.
conspicienda (Patæta), 69.
constricta (Anuga), 106.
continua (*Ariola*), 308.
continua (Tathothripa), 308.
contrariata (Negeta), 631.
conturbata (*Briarda*), 155.
convergens (Vestermannia), 610.
convergens (*Westermannia*), 610.
coreana (*Sarrothripa*), 266.
coreana (Sarrothripus), 266.
cornucopia (*Ingura*), 612.
cornucopia (Vestermannia), 612.
Corticata, 229.
corticea (*Ariola*), 68.
corvina (*Phlegetonia*), 69.
Cossedia, 479.
costalis (Barasa), 392.
costata (Lophoptera), 178.
costella (*Gyrtona*), 218.
costipallens (Gadirtha), 344.
costiplaga (Aiteta), 529.
costiplaga (Carea), 548.
costiplagata (*Sarrothripa*), 234.

costistrigata (*Ingura*), 113.
costistrigata (Pæctes), 113.
craeffti (Hylophila), 512.
Craspedagonia, 646.
crenulata (*Labanda*), 387.
crinopis (*Stictoptera*), 173.
cristata (*Gadirtha*), 336.
cristatrix (*Ingura*), 111.
cristatrix (Pæctes), 111.
cristigera (*Lophoptera*), 180.
cristipennis (Gyrtona), 208.
crocea (*Earias*), 499.
Cryassa, 70.
Cryptothripa, 309.
crystallites (*Sarrothripa*), 272.
crystallites (Sarrothripus), 272.
cucullioides (*Chaladra*), 533.
cucullioides (Stictoptera), 158, 171.
cumasia (Selepa), 301.
cuneata (*Eutelia*), 91.
cuneata (Marathyssa), 91.
cuprea (Eutelia), 26.
cuprea (*Penicillaria*), 26.
cuprea (Vestermannia), 608.
cuprea (*Westermannia*), 608.
cupreoviridis (Earias), 505.
cupreoviridis (*Xanthoptera*), 505.
cuprescens (Gadirtha), 348.
curiosa (Characoma), 229.
curiosa (*Selepa*), 229.
curvifera (Bryophilopsis), 316.
curvifera (*Chora*), 547.
curviferella (*Subrita*), 298.
curvilinea (Brada), 672.
curvilinea (Pæctes), 123.
curvilinea (*Sarrothripa*), 283.
cyanea (*Ophiusa*), 567.
cyanea (Vizaga), 567.
cyanodes (*Ingura*), 112.
cyanodes (Pæctes), 112.
cyanolopha (*Eutelia*), 91.
cyclops (Cacyparis), 464.
cymatistis (Barasa), 390.
cymatistis (*Ceparcha*), 390.
cymographa (Siglophora), 474.
cyphonota (Odontestis), 633.

Dabarita, 542.
damnipennis (Aiteta), 534.
damnipennis (*Phanaca*), 534.
Dandaca, 146.
dardoinula (*Nola*), 205.
decipiens (Cerala), 491.
decipiens (*Cyana*), 491.
declinata (*Ingura*), 125.
declinata (Pæctes), 125.
decrescens (*Gadirtha*), 305.
decrescens (Plotheia), 305.
deflexa (*Ariola*), 308.
degenerana (*Tortrix*), 265.
delaia (Stictothripa), 452.
delatrix (*Penicillaria*), 82.
delatrix (Phlegetonia), 82.
deleta (Anigræa), 96.
deleta (*Anuga*), 96.
deleta (Characoma), 239.
deleta (*Pardasena*), 239.
deletoides (Anigræa), 99.
deletoides (*Eutelia*), 99.
delicata (Risoba), 432.
delineata (*Ingura*), 128.
delineata (Pæctes), 128.
delosticha (Calathusa), 385.
delosticha (*Corula*), 385.
demiota (*Sarotricha*), 300, 303.
demptella (*Nephopteryx*), 213.
Dendrothripa, 227.
dentalis (*Trileuca*), 654.
denticulata (Lophoptera), 185.
denticulata (*Stictoptera*), 185.
dentifera (*Eutelia*), 23.
dentilinea (Labanda), 398.
dentilinea (*Moca*), 398.
dentilinealis (*Hypena*), 631.
dentula (Arcyophora), 645.
dentula (*Euxestis*), 645.
describens (*Ægilia*), 149.
describens (Stictoptera), 149.
devia (Carea), 555.
devincta (*Abrostola*), 117.
devincta (Pæctes), 117.
diagona (Blenina), 416.
diagona (Carea), 556.
dialeuca (*Gyrtona*), 202.
dialeuca (Nigramma), 202.
diapera (Eutelia), 51.
diaphana (*Stictoptera*), 148.
dichromella (Beara), 581.
dicyma (Hesperothripa), 227.
Didigua, 542.
diffundens (*Gadirtha*), 101.
diffusa (*Xanthodes*), 656.
Digba, 496.
digramma (Metaleptina), 623.
digramma (*Westermannia*), 623.
dileuca (Metaleptina), 623.
Dilophothripa, 239.
dilutana (*Tortrix*), 265.
dimidiata (Eutelia), 38.
diminuens (Medava), 450.
Dimirica, 385
dinarodes (Acontia), 659.
dinava (Bombotelia), 10.
dinavaensis (Bombotelia), 9.
dinawa (*Eutelia*), 76.
dinawa (*Penicillaria*), 10.
dinawa (*Thyatira*), 423.
dinawaensis (*Tibiocillaria*), 9.
dione (Carea), 552.
diopis (Iscadia), 366.
diphtheroides (Risoba), 430.
diplogramma (Carea), 545.
diplogramma (Risoba), 441.
diplographa (*Eutelia*), 19.
diplographa (*Plotheia*), 265.
discalis (*Maceda*), 569.
discigera (*Gadirtha*), 302.
discigera (Selepa), 302.
discistriga (Eutelia), 53.

discophora (Leocyma), 662.
dispila (Calathusa), 383.
dispila (*Corula*), 383.
dissimilis (*Marathyssa*), 87,
dissimilis (Thyriodes), 87.
distincta (Characoma), 234.
distincta (Clethrophora), 535.
distincta (*Gonitis*), 535.
distincta (*Hypothripa*), 234.
distorta (Eutelia), 16.
distracta (*Eutelia*) 28.
diurna (*Elydna*), 523.
diversipennis (*Heliothis*), 434.
diversipennis (Risoba), 434.
dives (*Metaculasta*), 651.
dives (Setoctena) 651.
divitalis (Gyrtona), 217.
docilis (Selepa), 304.
dohertyi (Sinna), 467.
donans (Blenina), 418.
Doranaga, 614.
dormitans (Baileya), 447.
dormitans (*Leptina*), 447.
dorsalis (*Gyrtona*), 197.
dorsifascialis (*Gyrtona*), 213.
dorsipuncta (Bombotelia), 13.
dorsivitta (*Earias*), 502.
dorsoviridis (*Kerala*), 491.
doubledayi (Baileya), 445.
doubledayi (*Leptina*), 445.
ducinfieldia (Iscadia), 364.
duckinfieldia (*Iscadia*), 364.
dulcilinea (*Eutelia*), 36, 37.
dulcissima (*Nolasena*), 520.
dulcissima (Paracrama), 520.
Dumatha, 251.
duplana (*Pyralis*), 265.
duplicata (Eligma), 327.
duplicata (*Xanthodes*), 656.
duplicilinea (Chlumetia), 65.
duplicilinea (*Hadena*), 65.

Earias, 496.
Eccopteroma, 635.
eceicei (Careades), 537.
eceicei (Stictoptera), 152.
edemoides (*Burdria*), 144.
effusa (*Blenina*), 563.
effusa (Carea), 563.
Egelesta, 305.
ekeikei (*Careades*), 537.
ekeikei (*Stictoptera*), 152.
ekeikei (*Targalla*), 61.
ekeikei (*Thyatira*), 425.
Elæognatha, 370.
elæota (Asinduma), 293.
elaina (Aiteta), 532.
elaina (*Capotena*), 532.
Eleale, 15.
elegans (*Ballatha*), 462.
elegans (Cacyparis), 462.
elegans (Ingura), 140.
Elesma, 369.
Eligma, 326.
Eliocræa, 401.
elongata (Gadirtha), 349.
elongata (*Plotheia*), 349.
elota (Casandria), 361.
elota (*Collomena*), 361.
emboloscia (Acontia), 653.
emittens (Casandria), 454.
Encalypta, 362.
endochlora (Pæctes), 134.
endoglauca (*Metaculasta*), 652.
endoglauca (Setoctena), 652.
endoleuca (Armactica), 664.
endophæa (Carea), 557.
endophæa (Chlorozada), 519.
endoplaga (Metaptya), 603.
ephesioides (Blenina), 417.
episcopalis (Pterogonia), 648.
erastioides (*Etanna*), 257.
erastioides (Nanaguna), 257.
erateinalis (Cossedia), 481.
erebennä (Gyrtona), 214.
eremna (Calathusa), 384.
eremna (*Corula*), 384.
Erizada, 577.
erubescens (*Earias*), 506.
escalerai (Aiteta), 528.
esmeralda (*Erizada*), 518.
Etanna, 224.
eumicta (Pæctes), 133.
euproctisoides (*Thiganusa*), 661.
Eurhipia, 15.
euryptera (Chlumetia), 64.
Eutelia, 15.
Eutelianæ, 1.
Euxestis, 642.
Evia, 175.
exacta (Gadirtha), 343.
excisa (Pterogonia), 672.
excitans (*Penicillaria*), 31.
eximia (Titulcia), 483.
exophila (*Sarotricha*), 270.
exophila (Sarrothripus), 270.
exquisita (*Bryophila*), 415.
exquisita (*Eutelia*), 49.
exscripta (Asinduma), 292.
exsicca (Gyrtona), 215.
extrema (*Deiopeia*), 468.
extrema (Sinna), 468.
exusta (Gelastocera), 583.

fabia (Earias), 507.
fabia (*Noctua*), 507.
fabrica (*Anuga*), 115.
fabrica (Pæctes), 115.
fagana (*Pyralis*), 513.
falcata (*Calymnia*), 636.
falcata (*Hylophila*), 494.
falcata (Tyana), 494.
falcataria (Careades), 536.
falsalis (*Hypena*), 205.
falsalis (Nycteola), 205.
fasciata (Carea), 559.
fasciata (Labanda), 396.
fasciata (*Ranaja*), 559.
fasciatrix (*Eurhipia*), 80.
fasciatrix (Phlegetonia), 80.
fasciatum (*Pallium*), 265.
fasciosa (Symitha), 454.
favillana (*Tortrix*), 265.
favillatrix (Eutelia), 45.

fenestra (Stictoptera), 146, 147.
fentoni (*Sinna*), 468.
ferreilutea (Siglophora), 472.
ferriceps (Gyrtona), 212.
ferridorsata (Eutelia), 18.
ferrifera (*Steiria*), 166.
ferrifera (Stictoptera), 166.
ferrigrisea (Characoma), 239.
ferrigrisea (*Pardasena*), 239.
ferrimissalis (*Gyrtona*), 218.
ferrinalis (*Evia*), 187.
ferrinalis (Lophoptera), 187.
ferrocana (Casandria), 351.
ferrocana (*Laphygma*), 351.
ferrofusa (*Plotheia*), 297.
ferrofusa (Selepa), 297.
ferromixta (*Gadirtha*), 155.
ferruginea (*Nedroma*), 144.
ferruginea (*Siglophora*), 472.
ferruginea (*Stictoptera*), 191.
fervens (Macrochthonia), 636.
fervida (*Earias*), 505.
fida (Anuga), 107.
filifera (Casandria), 360.
filifera (*Laphygma*), 360.
fimbriana (*Tortrix*), 461.
fimbriata (*Xanthodes*), 660.
flabella (*Ingura*), 123.
flabella (Pæctes), 123.
flabellum (Thyriodes), 85, 86.
flammans (Topadesa), 477.
flatoides (*Tyana*), 494.
flava (*Acontia*), 654.
flava (Carea), 546.
flavescens (Tympanistes), 588.
flavida (Earias), 500.
flaviluna (Eutelia), 54.
flavimargo (*Earias*), 508.
flavipennis (Risoba), 427.
flavobasalis (*Stictoptera*), 155.
floccifera (*Clettharra*), 252.
floralis (Sinna), 466.
florida (*Etanna*), 257.
florida (Nanaguna), 257.
formosa (Ptyonota), 577.
fovifera (Pæctes), 118.
frigidana (*Tortrix*), 265.
frondosana (*Earias*), 502.
frontalis (*Plotheia*), 305.
fulva (Careades), 541.
fulvidana (*Earias*), 505.
fulvipicta (Eutelia), 20.
fumosa (Blenina), 408.
furcata (Eutelia), 28.
furcata (*Penicillaria*), 28.
furcicauda (*Eutelia*), 59.
furcifera (Pucialia), 335.
fuscescens (*Edema*), 127.
fuscescens (Pæctes), 127.
fusciciliana (*Earias*), 501.
fuscicona (*Arcyophora*), 634.
fuscicona (Odontestis), 634.
fuscomarginata (*Carea*), 555.
fusculana (*Sarrothripa*), 265.

Gabala, 469.
gabriela (Eutelia), 31.
gabriela (*Penicillaria*), 31.
Gadirtha, 339.
Galleriomorpha, 305.
gamma (Aiteta), 527.
gamma (*Carea*), 527.
Garella, 227.
Gelastocera, 583.
gemetroptera (Gigantoceras), 172.
geminastra (Metaleptina), 623.
geminastra (*Westermannia*), 623.
gephyrias (Acontia), 659.
geræa (Eutelia), 39.
geræa (*Plotheia*), 300.
geræa (Selepa), 300.
Gerbatha, 393.
geyeri (*Eurhipia*), 32.
geyeri (Eutelia), 32.
Giaura, 276, 670.
Gigantoceras, 172.
gilvicolor (Eutelia), 140.
glaphyra (*Acontia*), 237.
glaphyra (Characoma), 237.
glauca (*Ingura*), 135.
glauca (Pæctes), 135.
glauca (Risoba), 428.
glaucana (*Sarrothripa*), 265.
glaucescens (Earias), 506.
glaucescens (*Paraxestis*), 506.
glaucobasis (*Gyrtona*), 195.
glaucobasis (Lophoptera), 195.
glaucocycla (Eutelia), 668.
glaucograpta (Gadirtha), 342.
glaucopasta (Characoma), 235.
glaucopoides (*Spersara*), 106.
gloriosa (*Panglima*), 327, 328.
gloriosa (Vestermannia), 606.
Goniocalpe, 597.
Gonioxestis, 637.
goodi (Vestermannia), 610.
goodi (*Westermannia*), 610.
gossypii (*Earias*), 502.
grabczeusci (Eutelia), 37.
grabczeuwskii (*Eutelia*), 37.
graellsi (Acontia), 660.
graellsii (*Acontia*), 660.
graminalis (*Labanda*), 399.
gratissima (Chloriola), 515.
gratissima (*Nolasena*), 515.
grisea (*Blenina*), 418.
grisea (Cerala), 490.
grisea (Risoba), 439.
grisea (Sarrothripus), 269.
grisea (*Selepa*), 269.
grisea (Stenosticta), 206.
grisea (Stictoptera), 165.
griseata (Bryophilopsis), 313.
griseata (Neaxestis), 639.
griseata (Stictoptera), 161.
griseifusa (*Ingura*), 136, 137.

griseifusa (Lobocraspis), 637.
griseifusa (Pæctes), 137.
griseinigra (*Labanda*), 387.
grisella(Stictothripa),451.
grisella (*Thalpochares*), 451.
griseola (Barasa), 390.
griseovirens (*Plotheia*), 305.
Gryposoba, 423.
guttiventris (*Chlumetia*), 68.
guttulosa (*Gadirtha*),305.
Gyrtona, 207.
Gyrtonides, 453.
Gyrtothripa, 448.

hades (Gadirtha), 348.
hæmacta (*Teinopyga*), 467.
hæmatica (Siglophora), 476.
hæmatopis (Casandria), 359.
hæmatosema (Pæctes), 135.
Halias, 511.
hampsoni (Aiteta), 530.
hampsoni (*Capotena*),530.
hampsoni (Chlumetia), 65.
hampsoni (*Eutelia*), 65.
hampsoni (Lamprothripa), 290.
hampsoni (*Tarache*), 290.
hamula (Bryophilopsis), 315.
hamula (*Erastria*), 315.
harmonica (*Eutelia*), 88.
harmonica (Marathyssa), 88.
hemichlora (Careades), 538.
hemihyala (Audea), 219.
hemithyris (Lophoptera), 181.
hemithyris (*Stictoptera*), 181.
hemixantha (*Earias*), 508.
herbealis (Labanda), 398.
herbida (*Dumatha*), 258.
herbida (Nanaguna), 258.
Hesperothripa, 227.
heterochroa (Maurilia), 572.
heterogramma (Stictoptera), 149.
hilaria (Cacyparis), 462.
hilaria (*Phalæna*), 462.
Hisbanda, 379.
histrio (Eutelia), 39.
histrio (*Marasmalus*), 90.
histrio (*Penicillaria*), 39.
holocausta (*Eutelia*), 73.
holocausta (Phlegetonia), 73.
holophæa (Carea), 545.
homochroa (Anigræa), 98.
huegeli (Earias), 502.
huma (Lophoptera), 184.
huma (*Stictoptera*), 184.
humeralis (*Steiria*), 155.
huntei (Careades), 538.
huntei (Labanda), 394.
huntei (*Thrysosceles*), 538.
Hylophila, 511.
Hylophilodes, 510.
hylusalis (Gyrtona), 213.
hypenistis (Lophoptera), 193.
hypenistis (*Stictoptera*), 193.
hyperythrum (*Tinosoma*), 577.
Hypodeva, 599.
Hyposcota, 460.
hypotherma (Calathusa), 379.
hypotherma (*Corula*), 379.
Hypothripa, 229.
hypsoides (Eligma), 328.
hypsoides (*Surina*), 328.
hyriodes (Cossedia), 479.

ianthina (*Plotheia*), 671.
ianthina (Selepa), 671.
Icasma, 261.
iconica (*Anomis*), 573.
iconica (Maurilia), 573.
icterica (Arcyophora), 645.
icterica (*Labarita*), 645.
ilicana (*Pyralis*), 265.
illucida (Lophoptera), 182.
illucida (*Stictoptera*), 182.
imitata (*Acontia*), 656.
imparata (*Xanthia*), 658.
impellens (*Xanthodes*), 658.
impingens (*Gadirtha*), 345.
impleta (*Eutelia*), 81.
imprimens (*Othora*), 305.
includens (*Ariola*), 308.
includens (*Othora*), 197.
inclusalis (Gyrtona), 209.
indica (*Eligma*), 330.
indica (*Sarrothripa*), 268.
indica (Sarrothripus), 268.
indicatana (Symitha), 243.
indicatana (*Tortrix*), 243.
inefficiens (*Xanthodes*), 658.
inexacta (Gadirtha), 345.
inextricata (*Eutelia*), 48.
inficita (*Eutelia*), 90.
inficita (Marathyssa), 90.
infida (*Targalla*), 82.
inflexa (*Laphygma*), 360.
Ingura, 109.
innocens (*Xanthodes*), 660.
innubila (*Anthophila*), 645.
inquirendus (Cremnopalpus), 454.
insolitata (Cacyparis), 463.
instabilis (*Anomis*), 573.
instructa (Eutelia), 31.
insulana (Earias), 502.
insulana (*Tortrix*), 502.
internifusca (Carea), 558.
intersepta (Acontia), 656.
intersepta (*Xanthodes*), 656.
iocephala (Maurilia), 575.
ioda (*Ptisciana*), 78.
iphida (Apothripa), 251.
iphida (*Cletitharra*), 251.
iridias (Aiteta), 532.
iridias (*Thyrsoscelis*), 532.
irrorata (Neaxestis), 640.
irrorata (*Paraxestis*), 640.
irrorata (*Pterogonia*), 647.
Iscadia, 362.
ischnodes (Calathusa), 380.
ischnodes (*Corula*), 380.

japonica (Anuga), 104.
japonica (*Piada*), 104.
javanica (*Eligma*), 330.
jocosatrix (Bombotelia), 11.
jososatrix (*Penicillaria*), 11.
jucunda (*Diphthera*), 429.
jucunda (Risoba), 429.
juventa (Anuga), 105.

kebea (*Risoba*), 435.
kebea (*Sarrothripa*), 274.
kebeæ (*Callingura*), 110.
kebeæ (*Eutelia*), 75.
Kerala, 489.
kheili (*Lophoptera*), 198.
korbi (*Asinduma*), 288.
kraeffti (*Hylophila*), 512.

Labanda, 393.
lactaria (Lamprothripa), 288, 671.
lactaria (*Nola*), 288.
lacteata (Negeta), 632.
lacteata (*Urbana*), 632.
lacteola (*Micra*), 628.
læta (*Ballatha*), 461.
læta (Hyposcota), 461.
lætepicta (Eligma), 326.
lætifica (*Stictoptera*), 155.
Lamprothripa, 288.
lancina (*Tyana*), 495.
lapidaria (*Clina*), 201.
lapidaria (Nigramma), 201.
laportei (*Amphipyra*), 418.
lata (*Othora*), 305.
latebricola (*Leptina*), 447.
laticincta (*Gerbatha*), 399.
latifasciella (*Subrita*), 265.
latimargo (Earias), 505.
lativia (Pardasena), 248.
lativitta (*Plotheia*), 305.
laurea (*Thalpochares*), 231.
Lazanda, 393.
ledereri (Setoctena), 652.
Leianophera, 350.
leighi (Eutelia), 43.
Leocyma, 661.
leprosa (Acripia), 591.
leprosa (*Plastenis*), 591.
Leptina, 444.
leptochroma (*Crioa*), 318.
leptochroma (Ochrothripa), 318.
leucocraspis (Carea), 557.
leucodelta (Eutelia), 42.
leucogonia (*Plotheia*), 302.
leucogonia (Selepa), 302.
leucogonia (*Westermannia*), 609.
leucographa (Eutelia), 18.
leucograpta (Selepa), 296.
leucophæa (*Acontia*), 631.
leucophæa (Giaura), 282.
Leucophanera, 481.
leucopis (Casandria), 362.
leucorhiza (*Bryophila*), 308.
leucospila (*Ariolica*), 614.
leucostriga (Lophoptera), 183.
leucostriga (*Stictoptera*), 183.
leucotis (*Blenina*), 281.
leucotis (Giaura), 281.
leucotrigona (*Ingura*), 112.
leucotrigona (Pæctes), 112.
levitans (Baileya), 447.
levitans (*Leptina*), 447.
Libunea, 334.
lichenaria (*Erizada*), 577.
lichenigera (*Giaura*), 261.
lichenigera (Mniothripa), 261.
lichenoides (*Gallleriomorpha*), 305.
lichenopa (Blenina), 415.
lichenopa (*Ceparcha*), 415.
lichenosa (*Acronycta*), 416.
lichenosa (Blenina), 403.
lichenosa (Chlumetia), 63.
lichenosa (Giaura), 280.
lichenosa (*Perciana*), 63.
lichenosa (*Ptisciana*), 280.
lignosa (Petrinia), 323.
lilacina (*Churia*), 564.
lilacina (*Symitha*), 286.
limbana (*Earias*), 505.
limonia (*Earias*), 504.
lineatrix (Bombotelia), 14.
lineatrix (*Penicillaria*), 14.
lineolata (Ariolica), 487.
lintnerana (*Sarothripus*), 265.
literata (Risoba), 437.
literata (*Tyana*), 494.
litigiosa (*Apamea*), 180.
litigiosa (Lophoptera), 180.
littora (*Cletthara*), 231.
lobata (Dilophothripa), 240.
lobidorsis (*Choephora*), 644.
Lobocraspis, 636.
longipennis (Nigramma), 198.
longipennis (Sadarsa), 204.
longiplaga (Vestermannia), 605.
longiplaga (*Westermannia*), 605.
longivalvis (Arcyophora), 644.
Lophocrama, 521.
lophophora (Nigramma), 196.
Lophoptera, 175.
Lophosema, 332.
lophota (Gyrtona), 209.
Lophothripa, 258.
Lophotogonia, 670.
lubina (*Maurilia*), 574.
lucida (Metaptya), 601.
luctuosa (Lophoptera), 189.
luctuosa (*Stictoptera*), 189.
ludatrix (*Penicillaria*), 82.
luminosa (*Acontia*), 628.
luminosa (Negeta), 628.
lunata (*Lycoselene*), 433.
lunata (Risoba), 433.
lunifera (Bryophilopsis), 314.
lunodes (*Ingura*), 129.
lunodes (Pæctes), 129, 140, 669.
lunulata (Anuga), 103.
Lussa, 350.
luteolaria (Earias), 500.
Lycoselene, 424.

maccvoodi (Etanna), 225.
Maceda, 568.
mackwoodi (*Dendrothripa*), 225.
Macrobarasa, 442.
macrocera (*Cremnodes*), 106.
Macrochthonia, 635.
macrodonta (Plagiograpta), 613.

macromma (Stictoptera), 162.
macroptera (*Leptina*), 491.
maculana (*Earias*), 501.
maculata (Bombotelia), 7.
maculata (Churia), 594.
maculata (*Penicillaria*), 7, 13.
magnifica (*Hylophila*), 512.
malachitis (Blenina), 405.
malachitis (Sarrothripus), 263.
malagassica (Eligma), 329.
malanga (Eutelia), 668.
malvæ (Acontia), 658.
malvæ (*Noctua*), 658.
mammida (Æschradia), 378.
mammida (*Apamea*), 378.
mansueta (Maceda), 569.
Marasmalus, 88.
Marathyssa, 88.
margarita (Gabala), 469.
marginea (*Plastenis*), 591.
mariva (*Heterocampa*), 336.
mariva (Pucialia), 336.
mathilda (Carea), 553.
Maurilia, 570.
mauritia (*Sarrothripa*), 271.
mauritia (Sarrothripus), 271.
Medava, 450.
mediifascia (Anigræa), 96.
mediifascia (*Eutelia*), 96.
mediofusca (*Eutelia*), 84.
mediofusca (Phlegetonia), 84.
mediopunctata (Anigræa), 95.
mediopunctata (*Lophoptera*), 95.
meeci (Bombotelia), 10.
meeci (Lophoptera), 192.
meeki (*Penicillaria*), 10.
meeki (*Stictoptera*), 192.
Megathripa, 319.
megei (Blenina), 406.
megei (*Dandaca*), 406.
melanephra (Eutelia), 35.
melanistis (Stictoptera), 165.
melanographa (Casandria), 352.
melanoleuca (Bryophilopsis), 317, 671.
melanolitha (Cacyparis), 463.
melanopis (Eutelia), 40.
melanosticta (Elæognatha), 374.
melanosticta (Pardasena), 249.
menalcas (Eutelia), 41.
menalcas (*Penicillaria*), 41.
mesocausta (Carea), 564.
mesogona (Eutelia), 50.
mesogonia (Neaxestis), 640.
mesogonia (*Paraxestis*), 640.
mesoleuca (Negeta), 628.
mesoleuca (*Tarache*), 628.
mesonephele (*Arcyothora*), 635.
mesonephele (Odontestis), 635.
mesoplaga (*Sarrothripa*), 272.
mesoplaga (Sarrothripus), 272.
mesospila (Calathusa), 383.
mesospila (*Corula*), 383.
metableta (Calathusa), 384.
metableta (*Corula*), 384.
metachrysa (Blenina), 420.
metachryseis (Micriscadia), 377.
Metaculasta, 650.
Metaleptina, 620.
metaleuca (*Carea*), 518.
metaleuca (Chlorozada), 518.
metalophota (*Blenina*), 233.
metalophota (Characoma), 233.
metamelæna (Odontodes), 143.
metanyctea (Blenina), 409.
metaphæa (Carea), 558.
metaphæa (Casandria), 358.
metaphæa (*Gadirtha*), 191.
metaphæa (Lophoptera), 191.
Metaptya, 601.
metarhoda (*Rhizana*), 577.
metasarca (Eutelia), 43.
metascotia (Arachnognatha), 322.
metaspilella (*Subrita*), 265.
meterythra (Aiteta), 528.
meterythra (Arachnognatha), 321.
meterythra (Titulcia), 485.
methyalea (Lophoptera), 179.
methyalea (*Stictoptera*), 179.
Micriscadia, 377.
microcyma (Metaleptina), 621.
microcyma (*Urbona*), 621.
microdonta (Gyrtothripa), 449.
Microthripa, 226.
microthyris (Stictoptera), 169.
Microxestis, 642.
Microzada, 578.
migrator (*Xanthodes*), 654.
millierei (*Hylophila*), 513.
Minica, 146.
minor (*Blenina*), 282.
minor (Giaura), 282.
minorella (Pardasena), 247.
minuta (Sarrothripus), 270.
minutum (*Icasma*), 270.
miochroa (*Hypothripa*), 246.
miochroa (Pardasena), 246.
miophæa (Bryothripa), 310.
miophora (Characoma), 238.
miota (Blenina), 415.
mirabile (*Tinosoma*), 575.
mirabilis (Camptozada), 575.
mirabilis (*Parelydna*), 568.

mirabilis (Vizaga), 568.
Mniothripa, 260.
moira (Carea), 555.
molybdea (Selepa), 303.
molybdota (Negeta), 625.
moneida (*Eutelia*), 80.
monilialis (*Gyrtona*), 213.
monosticta (Tyana), 493.
morena (Phæothripa), 318.
morena (*Sarrothripa*), 318.
morosa (Eutelia), 56.
morosa (*Penicillaria*), 56.
Motya, 350.
multilinea (Characoma), 235.
multilinea (*Cletthara*), 235.
multiplicans (Anuga), 106.
multiplicans (*Piada*), 106.
multipunctata (Cerala), 491.
multipunctata (*Kerala*), 491.
multistriata (Stictoptera), 170.
murina (*Ingura*), 117, 130, 131.
muscosa (*Diomea*), 396.
musculana (*Sarrothripa*), 264.
musculana (Sarrothripus), 264.
musculina (Aiteta), 533.
muttia (*Eutelia*), 95.

Nachaba, 63.
Nagara, 146.
Nagesena, 624.
nana (Gyrtona), 215.
nana (*Edema*), 130.
Nanaguna, 251.
narcissus (*Bombyx*), 330.
narcissus (Eligma), 330.
nattereri (*Penicillaria*), 27, 28.
Neaxestis, 638.
Nedroma, 143.
Negeta, 624.
negretina (Lophoptera), 189.
negretina (*Stictoptera*), 189.
Neonegeta, 617.
Neostictoptera, 350.
nephelota (Garella), 670.
nephelozona (*Plotheia*), 304.
nephelozona (Selepa), 304.
nerissa (Pterogonia), 650.
Nertobriga, 614.
nesta (*Asinduma*), 314.
nesta (Bryophilopsis), 314.
nexilla (Carea), 565.
nigra (Iscadia), 362.
nigralba (*Plotheia*), 296.
nigralba (Selepa), 296.
Nigramma, 196.
nigrans (Blenina), 413.
nigrescens (*Barasa*), 285.
nigrescens (Giaura), 285.
nigribasis (Metaleptina), 622.
nigridentula (Eutelia), 55.
nigridisca (*Symitha*), 252.
nigrilinea (*Minica*), 155.
nigriscripta (*Giaura*), 245.
nigriscripta (*Laphygma*), 351.
nigrisigna (Churia), 594.
nigrocinerea (*Gyrtona*), 213.
nigroguttata (*Lussa*), 356.
nigropuncta (Casandria), 351.
nigropuncta (*Neostictoptera*), 351.
nilotica (Characoma), 231.
nilotica (*Sarrothripa*), 231.
niphea (Giaura), 278.
niphea (*Plisciana*), 278.
niphostola (Giaura), 281.
nitens (Clettharina), 287.
nitescens (*Alæognatha*), 373.
nitescens (Elæognatha), 373.
nitida (Carea), 552.
nivea (Negeta), 632.
nivea (*Westermannia*), 632.
niveidisca (*Argyrothripa*), 278.
niveidisca (Giaura), 278.
niveivitta (Gyrtona), 212.
Noctuidæ, 1.
noctuiformis (Aon), 108.
nocturna (Hypodeva), 601.
nocturna (*Westermannia*), 601.
nolanella (Symitha), 244, 273.
novoguineana (Earias), 497.
nubes (*Craspedagonia*), 646.
nubes (Pterogonia), 646.
nubifera (*Dimirica*), 386.
nubifera (Pæctes), 131.
nubiferella (Beara), 582.
nubilicosta (Negeta), 626.
nubilicosta (*Periplusia*), 626.
nubilosa (Garella), 228.
nugatrix (Bombotelia), 7.
nugatrix (*Penicillaria*), 7,
Nycteola, 205, 261.
nyctichroma (*Ingura*), 133.
nyctichroma (Pæctes), 133.
nygmia (*Acontia*), 596.
nygmia (Chloroplaga), 596.

obliqua (Careades), 539.
obliquata (Eutelia), 41.
obliquinaria (Blenina), 411.
obliterata (Metaleptina), 621.
obrotunda (*Ingura*), 130.
obrotunda (Pæctes), 130.
obscura (*Ægilia*), 101.
obsolescens (Carea), 556.
obstructa (Risoba), 440.
obtenta (*Calduba*), 569.
obvia (Carea), 553.
occulta (Cryptothripa), 309.
occulta (*Selepa*), 309.
ocellata (*Anomis*), 593.
ocellata (Churia), 593.
ocellata (*Westermannia*), 665.

ochracea (*Churia*), 594.
ochreiplaga (Eutelia), 54.
ochreographa (Gyrtona), 216.
ochricostata (Eutelia), 57.
ochrobasis (Anigræa), 95.
ochroleucana (*Earias*), 584.
ochroleucana (Gelastocera), 584.
ochrophylla (Earias), 509.
ochroplaga (Negeta), 627.
ochroplaga (*Westermannia*), 627.
ochrota (Stictoptera), 160.
Ochrothripa, 317.
Ochthophora, 368.
octogesima (Calathusa), 380.
octogesima (*Corula*), 380.
ocularis (*Aglossa*), 93.
oculatris (*Penicillaria*), 58.
oculatrix (*Ingura*), 120.
oculatrix (Pæctes), 120.
ocyra (Carea), 558.
Odontestis, 632.
Odontodes, 143.
Œdicraspis, 320.
œdiplaga (Vestermannia), 611.
œdiplaga (*Westermannia*), 611.
œnocrossa (Acachmena), 589.
ogovana (Earias), 501.
olivacea (*Paracrama*), 570.
olivaceiplaga (*Eutelia*), 37.
olivana (*Argyrothripa*), 293.
olivana (Asinduma), 293.
olivaris (Casandria), 354.
olivascens (Stictoptera), 151.
olivens (Risoba), 436.
olivia (Dilophothripa), 242.
onusta (*Othora*), 305.
operatrix (*Eutelia*), 71.
operatrix (Phlegetonia), 71.
ophthalmica (Baileya), 445.
ophthalmica (*Leptina*), 445.
opposita (*Eutelia*), 82.
orbicularis (Aquis), 387.
orbicularis (*Diomea*), 387.
orbifera (*Argyrothripa*), 289.
orbifera (Lamprothripa), 289.
orientalis (Bryophilopsis), 311.
orientalis (*Halias*), 510.
orientalis (Hylophilodes), 510.
ornatissima (*Sinna*), 468.
Orosa, 276.
Orthoclostera, 109.
Orthocraspis, 586.
orthoxantha (Eligma), 331.
Othora, 305.
ougarra (Giaura), 279.
ougarra (*Blenina*), 279.
oxylopha (Bombotelia), 15.
oxylopha (*Eutelia*), 15.
oxyptera (Gyrtona), 213.

Pacidara, 3.
Pæctes, 109.
pallescens (*Cletthara*), 268.
palliatrix (*Penicillaria*), 82.
pallida (Carea), 556.
pallida (Ingura), 140.
pallida (Plusiocalpe), 599.
pallida (Tympanistes), 589.
pamphosalis (*Bocana*), 399.
Panglima, 326.
pannosa (*Blenina*), 418.
papuana (Beara), 582.
Paracarea, 566.
Paracrama, 520.
parallela (Aiteta), 528.
parallela (Earias), 504.
parallelaria (Carea), 553.
Paralopha, 142.
paranthyala (*Stictoptera*), 189.
Paraxestis, 641.
Paraxia, 229.
Pardasena, 245.
parectata (*Thalpochares*), 628.
Parelydna, 567.
Parhylophila, 514.
partita (*Micra*), 507.
parvella (Sarrothripus), 267.
parvella (*Subrita*), 267.
Patæta, 68.
patricula (*Maurilia*), 651.
patricula (Setoctena), 651.
peculiaris (*Orthoclostera*), 117.
peltaloma (*Caradrina*), 665.
Penicillaria, 15.
penicillum (Stictoptera), 219.
Periplusia, 624.
perlignealis (*Hypochalcia*), 201.
perlignealis (Nigramma), 201.
petrificata (*Penicillaria*), 53.
Petrinia, 323.
phæa (Maurilia), 573.
phæobasis (Lophoptera), 182.
phæobasis (*Stictoptera*), 182.
phæoleuca (Characoma), 236.
phæopepla (Negeta), 627.
phæopepla (*Westermannia*), 627.
phæopera (Anigræa), 100.
phæoplaga (Pæctes), 132.
phæoptera (*Iscadia*), 367.
phæostrota (Elæognatha), 370.
Phæothripa, 318.
phæoxista (Lophoptera), 186.
phæozona (Gyrtona), 216.
Phalga, 15.
Phanaca, 526.
philippinensis (*Eligma*), 330.
philomela (*Metaptila*), 369.
Phlegetonia, 70.
phœnicochlora (Lophocrama), 521.
phraganoides (*Stictoptera*), 148.
phryganealis (*Nagara*), 147.
Phumana, 102.
phycisoides (*Gyrtona*), 210.
Piada, 102.
picta (*Calymera*), 612.
picta (Vestermannia), 612.
pictatrix (Eutelia), 44.
picticolor (*Eutelia*), 78.

piperita (*Arcyophora*), 641.
piperita (Neaxestis), 641.
piperitella (Arcyophora), 672.
Pitrasa, 424.
plaga (*Earias*), 501.
plagiata (*Othora*), 305.
Plagiograpta, 613.
plagioscia (*Carea*), 539.
plagioscia (Careades), 539.
Pleurasympieza, 350.
Plotheia, 305.
plumbea (Bombotelia), 14.
plumbea (*Penicillaria*), 14.
plumbeata (Selepa), 299.
plumbeifascia (*Gyrtona*), 186.
plumbeifascia (Lophoptera), 186.
plumbeola (Lophoptera), 184.
plumbisparsa (Gyrtona), 217.
Plusiocalpe, 598.
Plusiodes, 603.
plusioides (*Eleale*), 21.
plusioides (Eutelia), 21, 82.
pœcilosoma (*Stictoptera*), 155.
polia (Characoma), 237.
polia (*Hypothripa*), 237.
polia (Pæctes), 136.
poliochroa (Eutelia), 667.
poliochroa (Gadirtha), 350.
polionota (Gyrtona), 217.
poliopepla (*Iscadia*), 337.
poliopepla (Pucialia), 337.
poliophæa (*Sarrothripa*), 273.
poliophæa (Sarrothripus), 273.
poliophæa (Steniscadia), 376.
Poliothripa, 333.
poliotis (*Ingura*), 113.
poliotis (Pæctes), 113.
polla (*Leocyma*), 653.
polla (Setoctena), 653.
pollusca (*Leocyma*), 620.
pollusca (Neonegeta), 620.
polychorda (Eutelia), 60.
polycyma (*Sarrothripus*), 272.
polygrapha (*Gadirtha*), 191.
polyhymnia (Cryptothripa), 310.
polyhymnia (*Plotheia*), 310.
polymorpha (*Gyrtona*), 200.
polymorpha (Nigramma), 200.
polyodonta (Steniscadia), 671.
polyspilalis (Gabala), 470.
porphyriota (Phlegetonia), 74.
præpilata (*Ingura*), 124.
prætexta (*Eurhipia*), 82.
prasina (Chlorozada), 518.
prasina (*Tortrix*), 511.
prasinana (Hylophila), 513.
prasinana (*Pyralis*), 511.
prasinana (*Tortrix*), 513.
pratti (Corea), 554.
pratti (*Ingura*), 114.
pratti (Pæctes), 114.
pratti (Risoba), 433.
pratti (Sphingiforma), 525.
pratti (*Targalla*), 19.
pratti (Tibiocillaria), 5.
procera (Eutelia), 140.
producta (*Edema*), 127, 129.
producta (Iscadia), 365.
producta (*Simplicia*), 365.
prominens (Risoba), 438.
prosticta (Odontestis), 633.
prosticta (*Plusiocalpe*), 633.
proximalis (Gyrtona), 218.
pryeri (Carea), 554.
psaliphora (Pæctes), 110.
Pseudelydna, 522.
Pseudocalpe, 642.
Pterogonia, 646.
Ptisciana, 286.
Ptyonota, 579.
Pucialia, 334.
pudicana (Earias), 507.
pulchella (Ariolica), 487.
pulchella (*Chionomera*), 487.
pulcherrima (Eutelia), 23.
pulcherrimus (*Ripogenus*), 23.
pulchra (Gadirtha), 341.
puloa (Blenina), 422.
punctana (*Tortrix*), 265.
punctata (Giaura), 284.
punctata (Pardasena), 248.
punctata (*Sarotricha*), 284.
punctata (*Symitha*), 284.
punctilineata (Cerala), 490.
punctilineata (*Kerala*), 490.
pupillana (*Earias*), 507.
pura (*Barasa*), 279.
pura (Giaura), 279.
purissima (*Iscadia*), 338.
purissima (Pucialia) 338.
purpurascens (Anigræa), 102.
purpurascens (Casandria), 355.
purpurascens (Elæognatha), 374.
purpurascens (Lophosema), 332.
purpurascens (Negeta), 630.
purpurascens (Nigramma), 202.
purpurascens (*Sadarsa*), 202.
purpurea (Carea), 551, 558.
purpurea (Neonegeta), 619.
purpureonigra (Eutelia), 62.
purpureoscripta (*Didigua*), 564.
pusilla (*Gyrtona*), 448.
pusilla (Gyrtothripa), 448.
pustulifera (*Ciasa*), 190.
pustulifera (*Earias*), 494.
pustulifera (Lophoptera), 190.
pustulifera (Tyana), 494.
pygmæa (Pæctes), 124.
pyraloides (*Chaduca*), 198.
pyraloides (Nigramma), 198.
pyrastis (Eutelia), 28.
pyrausta (*Calymnia*), 636.
pyrites (Chlorozada), 517.
pyrospila (*Penicillaria*), 58.

quadratifera (Nigramma), 197.
quadratipennis (Bessara), 585.
quadrilituratа (Eutelia), 52.
quadrinotata (*Gadirtha*), 189.
quadrinotata (Lophoptera), 189.
quadripennis (Chandica), 478.
quadripuncta (Blenina) 420.
quadristrigata (*Steiria*), 144.
quercana (*Tortrix*), 511.
queusta (*Chionomera*), 484.
quinaria (Blenina), 410.

rabdota (*Clettharra*), 301.
rabdota (Selepa), 301.
ramosana (*Tortrix*), 265.
Ranaja, 542.
ransonneti (*Ariola*), 516.
rectifera (*Gadirtha*), 454.
rectilinea (Gigantoceras), 174.
rectilinea (Pucialia), 338.
rectimarginata (*Carea*), 586.
rectimarginata (Orthocraspis), 586.
rectomarginata (*Paracrama*), 520.
recurrens (*Ingura*), 116.
repandens (Carea), 548.
repandens (*Chora*), 548.
repleta (*Eutelia*), 81.
repleta (*Steiria*), 170.
repleta (Stictoptera), 170.
repletana (Giaura), 276.
repugnans (Risoba), 426.
repugnans (*Thyatira*), 426.
resoluta (Penicillaria), 140.
reticularis (*Teinopyga*), 468.
revayana (Sarrothripus), 265.
revayana (*Tortrix*), 265.
reversa (*Nertobriga*), 614.
Rhizana, 577.
rhoda (Neaxestis), 639.
rhodophila (*Dabarita*), 547.
rhythmopis (Selepa), 300.
richardi (*Stictoptera*), 170.
Ripogenus, 15.
Risoba, 424.
rivagana (*Pyralis*), 265.
rivata (Eutelia), 34.
robinsoni (Carea), 560.
robusta (Giaura), 286.
robusta (*Selepa*), 286.
rœderi (*Bryophila*), 313.
rœderi (Bryophilopsis), 313.
rœselioides (*Acontia*), 247.
rœselioides (Pardasena), 247.
rosea (*Eurhipia*), 71.
roseifera (Earias), 506.
rotundalis (*Gyrtona*), 210.
rotundipennis (Garella), 228.
rubicundula (*Microleon*), 583.
rubida (Anigræa), 101.
rubidorsalis (Tympanistes), 588.
rubiginea (Paracarea), 566.
rubiginea (Paralopha), 142.
rubicosa (Careades), 541.
rubrifusa (Carea), 555.
rubromarginata (*Hylophila*), 511.
rubromarginata (Hylophilodes), 511.
rudis (*Bagistana*), 252.
rudivitta (*Egelesta*), 305.
rufa (Erizada), 579.
rufa (Lophoptera), 192.
rufa (*Stictoptera*), 192.
rufatrix (*Penicillaria*), 25.
rufescens (*Maceda*), 569.
rufescens (Paraxestis), 641.
rufescens (Selepa), 297.
ruficeps (Negeta), 629.
ruficeps (*Westermannia*), 62(C
ruficirra haracoma), 236.
ruficirra (*Hypothripa*), 236.
rufimargo (Titulcia), 484.
rufimedia (Megathripa), 319.
rufimedia (*Sarrothripa*), 319.
rufina (*Clina*), 201.
rufipuncta (*Dendrothripa*), 228.
rufoflava (Pseudelydna), 523.
rufoflava (*Xanthia*), 523.
rufopunctata (Earias), 497.
rufula (*Eutelia*), 96.
rufula (*Targallodes*), 58.
russiana (*Sarrothripa*), 265.

sabulosa (*Ingura*), 139.
sabulosa (Pæctes), 139.
Sadarsa, 203.
sanguinea (*Careades*), 538.
sanguinea (Topodesa), 477.
sanguinolenta (*Chionomera*), 475.
sanguinolenta (Siglophora), 475.
sara (*Gadirtha*), 343.
sarawakana (*Savoca*), 217.
Sarrothripinæ, 220.
Sarrothripus, 261.
saturalis (Labanda), 396.
saturata (*Areola*), 570.
saturata (Maurilia), 570.
Savoca, 207.
scapularis (Acripia), 590.
scapularis (*Plastenis*), 590.
scelerata (*Eutelia*), 80.
scelerata (Phlegetonia), 80.
sceptica (Giaura), 283.
sceptica (*Symitha*), 283.
Schazama, 88.
schildei (*Eucalypta*), 363.
Scolopocneme, 339.
scoparioides (Characoma), 230.
scoparioides (*Corticata*), 230.
scotia (Lamprothripa), 291.
scotia (*Ptisciana*), 291.
scripta (Aiteta), 530.
scripta (*Arbasera*), 530.
scriptana (*Tortrix*), 265.
selenitis (*Westermannia*), 621.

Selepa, 294.
semialba (*Minica*), 164.
semialba (Stictoptera), 164.
semicarbonalis (Gyrtona), 210.
semicircularis (Pæctes), 121.
semifervens (Erizada), 577.
semifervens (*Gadirtha*), 577.
semiflava (*Chandica*), 480.
semiflava (Cossedia), 480.
seminivea (Ptisciana), 286.
semipars (*Bryophila*), 399.
semipars (Labanda), 399.
semipartita (*Stictoptera*), 155.
semirufa (Lophoptera), 179, 669.
semiviridis (Acripia), 592.
senex (Blenina), 407.
senex (*Dandaca*), 407.
sericea (Metaptya), 602.
sericealis (*Erizada*), 597.
sericealis (Goniocalpe), 597.
sericina (*Metaptya*), 598.
sericina (Ochthophora), 368.
sericina (Plusiocalpe), 598.
seticornis (Carea), 564.
seticornis (*Nonagria*), 564.
Setoctena, 650.
sexilinea (Characoma), 232.
sexilinea (*Hypothripa*), 232.
siccata (Angræa), 100.
siccata (*Eutelia*), 100.
siculana (*Sarrothripa*), 265.
Siglophora, 472.
signata (*Ariolica*), 614.
signata (Nertobriga), 614.
signata (*Othora*), 305.
signifera (*Steiria*), 155.
signifera (Stictoptera), 155.
Silacida, 15.
siliquana (*Earias*), 502.
similis (*Gadirtha*), 339.
similis (Pucialia), 339.
simillima (*Earias*), 502.
simplex (Bombotelia), 12.
simplex (*Eutelia*), 12.
Sina, 379.
Sinna, 465.
sinuosa (Eutelia), 17.
sinuosa (*Phalga*), 17.
sinuosa (Sarrothripus), 269.
sinuosa (*Symitha*), 269.
smaragdina (Blenina), 412.
smaragdina (Earias), 509.
smaragdinana (*Earias*), 502.
smithii (*Pleurasympieza*), 356.
snelleni (Eutelia), 29.
snelleni (*Ingura*), 29.
solida (Penicillaria), 140.
soliera (*Doranaga*), 615.
soliera (Nertobriga), 615.
solitaria (Eutelia), 55.
solitaria (*Penicillaria*), 55.
solomonis (Blenina), 414.
solstitialis (Gigantoceras), 173.
spatulata (*Capotena*), 530.
speculatrix (*Tyana*), 495.
speiplena (*Aphusia*), 507.
Spersara, 102.
sphærophora (Risoba), 425.
Sphingiforma, 524.
spilalis (*Gyrtona*), 210.
spurcata (*Gadirtha*), 305.
squamifera (Blenina), 416.
squamifera (*Lophoptera*), 416.
squammigera (Lophoptera), 177.
squamulosa (*Lophoptera*), 180.
stalactitis (Negeta), 625.
stalactitis (*Westermannia*), 625.
stali (Arcyophora), 645.
stalii (*Setoctena*), 645.
Steiria, 146.
steirialis (*Nagara*), 148.
stellata (*Dialithoptera*), 671.
steniptera (Casandria), 359.
Steniscadia, 376.
stenophylla (Calathusa), 382.
stenophylla (*Corula*), 382.
Stenosticta, 206.
sticticraspis (Risoba), 442.
stictoprocta (*Eutelia*), 79.
stictoprocta (Phlegetonia), 79.
Stictoptera, 146.
Stictopterinæ, 141.
Stictothripa, 450.
stigmatophora (*Plotheia*), 294.
stigmatophora (Selepa), 294.
stipata (Lophoptera), 188.
stipata (Plusia), 188.
stoninus (*Sarrothripus*), 265.
straminea (*Doranaga*), 616.
straminea (Nertobriga), 616.
strenualis (*Gyrtona*), 213.
striata (Odontestis), 634.
striata (Stictoptera), 160.
striatura (*Doranaga*), 649.
striatura (Pterogonia), 649.
strigifera (*Selepa*), 302.
strigivenata (*Giaura*) 268.
strigivenata (Sarrothripus), 268.
strigula (*Eutelia*), 81.
strigula (Phlegetonia), 81.
stroca (Casandria), 361.
stroca (*Iscadia*), 361.
stygia (Stictoptera), 168.
subapicalis (*Abrostola*), 116.
subapicalis (Pæctes), 116.
subaurata (*Stictoptera*), 148.
subfasciata (Nigramma), 199.
subfasciata (*Othora*), 199.
subfasciata (*Steiria*), 144.
subfervida (Œdicraspis), 320.
subflava (Aiteta), 531,
subflava (*Capotena*), 531.

subflavida (Calathusa), 381.
subglauca (Elesma), 369,
subglauca (*Othora*), 305.
sublineata (Negeta), 631.
sublineata (*Urbona*), 631.
submuscosa (*Bariana*), 399.
submuscosa (Labanda), 399.
subobliqua (*Steiria*), 155, 156.
subobliqua (Stictoptera), 156, 161.
subocellata (*Eutelia*), 82.
subolivacea (Acripia), 591.
Subrita, 261.
subrubens (Eutelia), 58.
subrubens (*Penicillaria*), 58.
subrubra (*Beara*), 578.
subrubra (Careades), 540.
subrubra (Erizada), 578.
subtilis (Carea), 542.
subtilis (*Dabarita*), 542.
subviridis (Earias), 504.
suffundens (*Anophia*), 61.
suffundens (Eutelia), 61.
sulphuraria (*Earias*), 500.
sundana (*Cosmia*), 548.
superba (*Acontia*), 672.
superba (Ariolica), 488.
superba (Hypodeva), 672.
superba (*Tyana*), 488.
superba (Vestermannia), 606.
superba (*Westermannia*), 606.
Surina, 326.
svinhœi (Stictoptera), 167.
swinhœi (*Stictoptera*), 167.
sylpha (Hylophila), 514.
sylvana (*Pyralis*), 513.
Symitha, 243.
symmicta (*Sarrothripa*), 267.
symmicta (Sarrothripus), 267.
symphonica (Eutelia), 50.
syriacana (Earias), 508.

Tamusida, 251.
tarachoides (Bryophilopsis), 315.
Targalla, 70.
Targallodes, 15.
tarica (Carea), 552.
tarika (*Carea*), 552.
Tathothripa, 307.
tawan (Axia), 454.
Teinopyga, 465.
tenera (*Sina*), 382.
tenuimargo (Tyana), 493.
tenuipalpis (Cacyparis), 465.
tenuipalpis (*Epizeuxis*), 465.
tenuis (*Cucullia*), 204.
tenuis (Sadarsa), 204.
testacea (Tympanistes), 587.
tetragramma (Barasa), 392.
thermistis (Aiteta), 529.
thermistis (*Carea*), 529.
Thiganusa, 661.
thoracica (*Gyrtona*), 210.
Thrypticodes, 251.
Thyriodes, 85.
Thyrsoscelis, 526.
Tibiocillaria, 5.
timesia (Stictoptera), 157.
tinctoides (*Checupa*), 345.
Tinosoma, 577.
Titulcia, 482.
todara (Nigramma), 199.
Topadesa, 476.
Tortriciforma, 594.
tortricoides (Giaura), 283.
tortricoides (*Orosa*), 283.
trajiciens (*Steiria*), 154.
trajiciens (Stictoptera), 154.
transfossa (Leianophera), 454.
transvalica (Selepa), 299.
transversa (Acontia), 654.
transversa Chlumetia), 68.
transversa (*Nachaba*), 68.
transversa (*Stictoptera*), 155.
transversa (*Xanthodes*), 654.
triangularis (*Clettharra*), 278.
triangularis (Vestermannia), 608.
triangularis (*Westermannia*), 608.
triangulifera (Ariolica), 486.
triangulifera (*Chionomera*), 486.
trichocera (Gadirtha), 340.
trigonica (Neonegeta), 619.
trigonica (*Westermannia*), 619.
trigoniphora (Aiteta), 530.
trigoniphora (*Capotena*), 530.
trigramma (Setoctena), 651.
Triorbis, 324.
triorbis (*Amaloptila*), 369.
tripartita (Eutelia), 19.
tripartita (*Gyrtona*), 193.
tripartita (*Ingura*), 19.
tripartita (Lophoptera), 193.
triphænopsis (Blenina), 419.
tristrigosa (*Earias*), 502.
troctopera (Elæognatha), 371.
Trogobriga, 616.
truncata (Aiteta), 534.
truncata (*Brada*), 534.
tumida (Carea), 547.
tumidicosta (*Stictoptera*), 356.
turana (*Earias*), 509.
turneri (Gadirtha), 344.
turneri (*Ochthophora*), 344.
Tyana, 492.
Typanistes, 587.

umbrosa (Labanda), 400.
undulana (*Tortrix*), 265.
unicolor (*Sinna*), 468.
uninotata (*Digba*), 500.
uniplaga (Earias), 497.
unipunctata (Carea), 550.
Urbona, 624.

valida (*Clettharra*), 252.
vallata (Characoma), 230.

vallata (*Hypothripa*), 230.
variabilis (*Steiria*), 156, 159.
varians (Blenina), 414.
variegata (*Blenina*), 403.
variegata (*Clettharra*), 256.
variegata (Iscadia), 364.
variegata (Nanaguna), 256.
variegata (*Pitrasa*), 428.
variegata (Risoba), 428.
variegata (Stictoptera), 163.
variegata (*Tarache*), 671.
varipes (Carea), 547.
vates (Leocyma), 662.
velata (*Othora*), 305.
veluta (Aiteta), 527.
venalis (*Dendrothripa*), 285.
venalis (Giaura), 285.
ventilator (*Marasmalus*), 86.
venustissima (Pacidara), 3.
verecunda (*Erastria*), 257.
verna (Chlorozada), 519.
verna (*Erizada*), 519.
verna (*Hypothripa*), 246.
verna (Pardasena), 246.
vernana (Earias), 504.
vernana (*Tortrix*), 504.
Vestermannia, 603.
vexilla (Carea), 565.
vexilla (*Dinumma*), 565.
vialis (*Risoba*), 438.
violescens (Phlegetonia), 72.
violescens (Selepa), 296.
virescens (*Plotheia*), 264.
virescens (Sarrothripus), 264.
virgulana (Pardasena), 245.
virgulana (*Sarrothripa*), 245.
viridalis (*Bocana*), 396.
viridalis (Labanda), 395.
viridam (*Gonitis*), 535.
viridaria (Lophoptera), 194.
viridaria (*Stictoptera*), 194.
viridata (Anigræa), 98.
viridata (Blenina), 422.
viridata (*Eutelia*), 98.
viridata (Risoba), 431.
viride (*Phalæna*), 508.
viridescens (*Labanda*), 394.
viridifascia (Carea), 562.
viridifascia (*Erizada*), 562.
viridinota (*Eutelia*), 17.
viridipennis (Carea), 561.
viridipicta (Carea), 563.
viridipicta (*Churia*), 563.
viridipuncta (Tortriciforma), 595.
viridis-linzata (*Phalæna*), 513
viridisquama (Aquis), 386.
vitea (Lophothripa), 259.
vitea (*Selepa*), 259.
vitella (*Tinea*), 507.
vitellina (*Pitrasa*), 427.
vitellina (Risoba), 427.
vitiensis (Stictoptera), 159.
vitrea (Stictoptera), 147.
vittalba (Eutelia), 59.
vittalba (*Penicillaria*), 59.
vittalis (Nanaguna), 255.
vittalis (*Tamusida*) 255.
vittata (Ingura), 140.
vittigera (*Lophoptera*), 177.
Vizaga, 567.
vulgaris (Eutelia), 140.
vutzdorffi (Microxestis), 642.

Westermannia, 603.
westermannii (*Plusiodes*), 606.
wutzdorffi (*Euxestis*), 642.

xanthia (*Carea*), 523.
xanthia (Pseudelydna), 523.
xanthobasis (*Ariola*), 618.
xanthobasis (Neonegeta), 618.
Xanthodes, 653.
xantholopha (*Blenina*), 413.
xantholopha (Macrobarasa), 443.
xanthophila (*Acontia*), 502.
xanthosticta (*Argyrothripa*), 444.
xanthosticta (Macrobarasa), 444.
xista (*Gyrtona*), 185.
xista (Lophoptera), 185.
xylinata (*Lophoptera*), 149.
xyloglypta (*Thryptiocodes*), 252.

yucca (*Gyrtona*), 217.

zanderi (*Arcyophora*), 637.
zanderi (Gonioxestis), 637.
Zebecba, 205.
zelia (Acontia), 618.
zelia (Neonegeta, 618.
Zobia, 15.

Printed by Taylor and Francis Red Lion Court, Fleet Street.

B.M. (N.H.).
No. 21.

LIST OF THE CURRENT

NATURAL HISTORY PUBLICATIONS OF THE TRUSTEES OF THE BRITISH MUSEUM.

The following publications can be purchased through the Agency of *Messrs.* LONGMANS & Co., 39, *Paternoster Row, London, E.C.*; *Mr.* QUARITCH, 11, *Grafton Street, New Bond Street, W.*; and *Messrs.* DULAU & Co., Ltd., 37, *Soho Square, W.*; or at the NATURAL HISTORY MUSEUM, *Cromwell Road, London, S.W.*

The History of the Collections contained in the Natural History Departments of the British Museum :—

Vol. I. Libraries; Botany; Geology; Minerals. Pp. xvii., 442. 1904, 8vo. 15*s.*

Vol. II. Separate historical accounts of the several collections included in the Department of Zoology. Pp. 782. 1906, 8vo. 1*l.* 10*s.*

Catalogue of the Books, Manuscripts, Maps, and Drawings in the British Museum (Natural History). Compiled by B. B. Woodward, Assistant in charge of the General Library, with some clerical assistance :—

Vol. I. A—D. Pp. viii., 500. 1903, 4to. 1*l.*
Vol. II. E—K. Pp. 501–1038. 1904, 4to. 1*l.*
Vol. III. L—O. Pp. 1039–1494. 1910, 4to. 1*l.*

Catalogue of the Specimens and Drawings of Mammals, Birds, Reptiles, and Fishes of Nepal and Tibet. Presented by B. H. Hodgson, Esq., to the British Museum. 2nd edition. By John Edward Gray. Pp. xii., 90. [With an account of the Collection by Mr. Hodgson.] 1863, 12mo. 2*s.* 3*d.*

(21852r—29.) Wt. 23398—36. 1500. 11/11. D & S. (*S.*) A

Report on the Zoological Collections made in the Indo-Pacific Ocean during the voyage of H.M.S. "Alert," 1881–2 Pp. xxv., 684. 54 Plates. 1884, 8vo. 1*l.* 10*s.*

Summary of the Voyage... ...	... By Dr. R. W. Coppinger.
Mammalia	... ,, O. Thomas.
Aves...	... ,, R. B. Sharpe.
Reptilia, Batrachia, Pisces	... ,, A. Günther.
Mollusca	... ,, E. A. Smith.
Echinodermata	... ,, F. J. Bell.
Crustacea	... ,, E. J. Miers.
Coleoptera	... ,, C. O. Waterhouse.
Lepidoptera	... ,, A. G. Butler.
Alcyonaria and Spongiida	... ,, S. O. Ridley.

Report on the Collections of Natural History made in the Antarctic Regions during the Voyage of the "Southern Cross." Pp. ix., 344. 53 Plates. 1902, Royal 8vo. 2*l.*

Mammalia	By Capt. G. E. H. Barrett-Hamilton.
Notes on Antarctic Seals ...	,, E. A. Wilson, M.B.
Extracts from the "Diary" of the late Nicolai Hanson.	——
Aves	,, Dr. R. Bowdler Sharpe.
Pisces...	,, G. A. Boulenger, F.R.S.
Tunicata	,, Prof. W. A. Herdman, F.R.S.
Mollusca	,, E. A. Smith.
Echinoderma	,, Prof. F. J. Bell.
Insecta	,, G. H. Carpenter and Hon. N. C. Rothschild.
Arachnida	,, Dr. E. L. Trouessart.
Crustacea	,, T. V. Hodgson.
Polychæta	,, Dr. A. Willey.
Gephyrea	,, A. E. Shipley.
Nematoda	,, Dr. von Linstow.
Cestoda	
Polyzoa	,, R. Kirkpatrick.
Porifera	
Anthozoa	,, Dr. L. Roule and S. J. Hickson, F.R.S.
Actiniæ	,, J. A. Clubb.
Hydrozoa	,, E. T. Browne.
Cryptogamia	,, A. Gepp, V. H. Blackman, and Miss E. S. Barton.
Rock Specimens	,, Dr. G. T. Prior.

National Antarctic Expedition, 1901–1904. [*Discovery Report.*] Natural History :—

Vol. I. Geology (Field-Geology : Petrography). Pp. xii., 160 : 10 plates, 72 text-figures, 2 maps. [With Index.] 1907, 4to. 1*l.* 10*s.*

Field-Geology ...	... By H. T. Ferrar, M.A., F.G.S.
Rock-Specimens ...	... ,, G. T. Prior, M.A., D.Sc., F.G.S.

Vol. II. Zoology (Vertebrata : Mollusca : Crustacea). Pp. xiv., 355 : 33 plates (17 coloured), 146 text-figures, 1 map. 1907, 4to. 3*l.*

Mammalia (pp. 69 : 5 pls. [3 col.], 36 figs.)	By E. A. Wilson, M.B.
Aves (pp. 121 : 13 pls. col., 46 figs.) ...	
Anatomy of Penguins (pp. 28 : 1 pl., 8 figs.)	,, W. P. Pycraft.

National Antarctic Expedition, 1901–1904—*continued.*

Vol. II—*continued.*

Fishes (pp. 5; 2 pls.)	By G. A. Boulenger, F.R.S.
Cephalodiscus (pp. 67: 7 pls. [1 col.], 17 figs.)	„ W. G. Ridewood, D.Sc.
Mollusca. I.—Cephalopoda (pp. 2: 1 fig.)	„ W. E Hoyle, D.Sc.
„ II.—Gastropoda (pp. 12, 1: 2 pls.)	„ E. A. Smith, I.S.O.
„ III.—Amphineura (pp. 12, 1: 2 pls.)	„ E. A. Smith, I.S.O.
„ IV.—Nudibranchiata (pp. 28: 1 pl., 30 figs.)	„ Sir Chas. Eliot, K.C.M.G., LL.D.
„ V.—Lamellibranchiata (pp. 7: 1 pl.)	„ E. A. Smith, I.S.O.
Brachiopoda (pp. 2: 4 figs.)	„ E. A. Smith, I.S.O.
Crustacea I.—Decapoda (pp. 7) ...	„ W. T. Calman, D.Sc.
„ II.—Cumacea (pp. 6: 1 pl., 4 figs.)	„ W. T. Calman, D.Sc.

Vol. III. Zoology and Botany (Invertebrata: Marine Algæ, Musci). Pp. vi., 273: 51 plates, 8 text-figures, and 1 chart. 1907, 4to. 2*l.* 10*s.*

On Collecting in Antarctic Seas (pp. 10)	By T. V. Hodgson, F.L.S.
Mollusca. VI.—Pteropoda (pp. 15: 2 pls.)	„ Sir Charles Eliot, K.C.M.G., LL.D.
Crustacea. III.—Amphipoda (pp. 39: 13 pls.)	„ A. O. Walker, F.L.S.
„ IV.—Leptostraca (pp. 2: 2 figs.)	„ Dr. J. Thiele.
„ V.—Ostracoda (pp. 9: 3 pls.)	„ Prof. G. S. Brady, F.R.S.
„ VI.—Cirripedia (pp. 4: 1 pl.)	„ Prof. A. Gruvel.
Pycnogonida (pp. 72: 10 pls.)	„ T. V. Hodgson, F.L.S.
Acari (pp. 6: 1 pl.)	„ Dr. E. L. Trouessart.
Chætognatha (pp. 6: 1 chart)	„ Dr. G. H. Fowler, F.L.S.
Nematoda (pp. 4: 1 pl.)	„ Dr. O. von Linstow.
Cestoda (pp. 6: 1 pl.)	„ A. E. Shipley, F.R.S.
Coelentera. I.—Alcyonaria (pp. 15: 2 pls.)	„ Prof. S. J. Hickson, F.R.S.
„ II.—Hydroid Zoophytes (pp. 34: 4 pls.)	„ Prof. S. J. Hickson, F.R.S., and F. H. Gravely.
„ III.—Tentacles of a Siphonophore (pp. 3: 5 figs.)	„ Dr. J. Rennie.
Porifera. I.—Hexactinellida (pp. 25: 7 pls.)	„ R. Kirkpatrick.
Marine Algæ. I.—Phæophyceæ and Florideæ (pp. 15: 4 pls.)	„ A. Gepp and Mrs. E. S. Gepp.
„ „ II.—Corallinaceæ (pp. 2: 1 fig.)	„ M. Foslie.
Musci (pp. 6; 2 pls.)	„ J. Cardot.

Vol. IV. Zoology (various Invertebrata). Pp. iv., 281: 65 plates, 1 text-figure. 1908, 4to. 1*l.* 15*s.*

Mollusca. VII.—Solenogastres (pp. 13: 2 pls.)	By Dr. H. F. Nierstrasz.
Insecta.—Aptera (pp. 5: 1 pl.) ...	„ G. H. Carpenter, B.Sc., M.R.I.A.
Crustacea. VII.—Schizopoda (pp. 42: 8 pls.)	„ W. M. Tattersall, M.Sc.
„ VIII.—Copepoda (pp. 44: 7 pls.)	„ R. Norris Wolfenden, M.D.

National Antarctic Expedition, 1901–1904—*continued.*

Vol. IV—*continued.*

Echinoderma (pp. 16 : 5 pls.)	By	F. Jeffrey Bell, M.A.
Echinoderm Larvæ (pp. 9 : 1 pl.) ...	„	E. W. McBride, M.A., F.R.S., and J. C. Simpson, B.Sc.
Myzostomidæ (pp. 26 : 1 pl. and 1 figure)	„	Dr. Rudolf Ritter von Stummer-Traunfels.
Sipunculoidea (pp. 6)	„	W. F. Lanchester, M.A.
Coelentera. IV.—Actiniæ (pp. 12 : 3 pls.)	„	J. A. Clubb, M.Sc.
Porifera. II.—Tetraxonida (pp. 56 : 19 pls.)	„	R. Kirkpatrick.
„ III.—Calcarea (pp. 52 : 12 pls.)	„	C. F. Jenkin, B.A.

Vol. V. Zoology and Botany. Pp. ix., 212 : 28 plates, and 19 text-figures. [With a Summary of the Contents of Vols. II.–V.] 1910, 4to. 1*l.* 10*s.*

Vertebrata. Ia.—Mammalia (Seal-Embryos) (pp. 21 : 2 pls., 1 text-figure)	By	Dr. H. W. Marett Tims.
Tunicata (pp. 26 : 7 pls., 2 text-figures)	„	Prof. W. A. Herdman, D.Sc., F.R.S.
Crustacea. IX.—Isopoda (pp. 77 : 10 pls)	„	T. V. Hodgson, F.L.S.
Nemertinea (pp. 15 : 1 pl., 16 text-figures)	„	Prof. L. Joubin.
Cœlentera. V.—Medusæ (pp. 62 : 7 pls.)	„	Edward T. Browne.
Lichenes (pp. 11 : 1 pl.)...	„	Dr. O. V. Darbishire.

A Monograph of Christmas Island (Indian Ocean) : Physical Features and Geology by C. W. Andrews, B.A., B.Sc., F.G.S., with descriptions of the Fauna and Flora by numerous contributors. Pp. xv., 337: 22 plates (7 coloured), a map, and 27 illustrations in text. [With Index.] 1900, 8vo. 1*l.*

First Report on Economic Zoology. By Fred. V. Theobald, M.A., &c. [With an Introduction, containing a Classification of Animals from the point of view of Economic Zoology, by Prof. E. Ray Lankester, LL.D., F.R.S.] Pp. xxxiv., 192. 18 Woodcuts. 1903, Roy. 8vo. 6*s.*

Second Report on Economic Zoology. By Fred. V. Theobald, M.A., &c. Pp. x., 197. 29 Illustrations. 1904, Roy. 8vo. 6*s.*

MAMMALS.

Catalogue of the Bones of Mammalia in the Collection of the British Museum. By Edward Gerrard. Pp. iv., 296. 1862, 8vo. 5*s.*

Catalogue of Monkeys, Lemurs, and Fruit-eating Bats in the Collection of the British Museum. By Dr. J. E. Gray, F.R.S., &c. Pp. viii., 137. 21 Woodcuts. 1870, 8vo. 4*s.*

Catalogue of Carnivorous, Pachydermatous, and Edentate Mammalia in the British Museum. By John Edward Gray, F.R.S., &c. Pp. vii., 398. 47 Woodcuts. 1869, 8vo. 6*s.* 6*d.*

Catalogue of Seals and Whales in the British Museum. By John Edward Gray, F.R.S., &c. 2nd Edition. Pp. vii., 402. 101 Woodcuts. 1866, 8vo. 8*s.*

———Supplement. By John Edward Gray, F.R.S., &c., Pp. vi., 103. 11 Woodcuts. 1871, 8vo. 2*s.* 6*d.*

Catalogue of Ruminant Mammalia (*Pecora*, Linnæus) in the British Museum. By John Edward Gray, F.R.S., &c. Pp. viii., 102. 4 Plates. 1872, 8vo. 3*s.* 6*d.*

Monograph of the Okapi. By Sir E. Ray Lankester, K.C.B., M.A., D.Sc., F.R.S., &c. Atlas. Compiled with the assistance of W. G. Ridewood, D.Sc. 48 Plates, with xxii. pp. of Explanations, &c. 1910, 4to. 1*l.* 5*s.*

Catalogue of the Marsupialia and Monotremata in the Collection of the British Museum. By Oldfield Thomas. Pp. xiii., 401. 4 Coloured and 24 plain Plates. [With Systematic and Alphabetical Indexes.] 1888, 8vo. 1*l.* 8*s.*

BIRDS.

Catalogue of the Birds in the British Museum :—

Vol. VII. Catalogue of the Passeriformes, or Perching Birds, in the Collection of the British Museum. *Cichlomorphæ* : Part IV., containing the concluding portion of the family Timeliidæ (Babbling Thrushes). By R. Bowdler Sharpe. Pp. xvi., 698. Woodcuts and 15 coloured Plates. [With Systematic and Alphabetical Indexes.] 1883, 8vo. 1*l.* 6*s.*

Vol. VIII. Catalogue of the Passeriformes, or Perching Birds, in the Collection of the British Museum. *Cichlomorphæ* : Part V., containing the families Paridæ and Laniidæ (Titmice and Shrikes) ; and *Certhiomorphæ* (Creepers and Nuthatches). By Hans Gadow, M.A., Ph.D. Pp. xiii., 386. Woodcuts and 9 coloured Plates. [With Systematic and Alphabetical Indexes.] 1883, 8vo. 17*s.*

Vol. X. Catalogue of the Passeriformes, or Perching Birds, in the Collection of the British Museum. *Fringilliformes* : Part I., containing the families Dicæidæ, Hirundinidæ, Ampelidæ, Mniotiltidæ, and Motacillidæ. By R. Bowdler Sharpe. Pp. xiii., 682. Woodcuts and 12 coloured Plates. [With Systematic and Alphabetical Indexes.] 1885, 8vo. 1*l.* 2*s.*

Vol. XI. Catalogue of the Passeriformes, or Perching Birds, in the Collection of the British Museum. *Fringilliformes* : Part II., containing the families

Catalogue of the Birds in the British Museum—*continued*.

Cœrebidæ, Tanagridæ, and Icteridæ. By Philip Lutley Sclater, M.A., F.R.S. Pp. xvii., 431. Woodcuts and 18 coloured Plates. [With Systematic and Alphabetical Indexes.] 1886, 8vo. 1*l.*

Vol. XII. Catalogue of the Passeriformes, or Perching Birds, in the Collection of the British Museum. *Fringilliformes*: Part III., containing the family Fringillidæ. By R. Bowdler Sharpe. Pp. xv., 871. Woodcuts and 16 coloured Plates. [With Systematic and Alphabetical Indexes.] 1888, 8vo. 1*l.* 8*s.*

Vol. XIII. Catalogue of the Passeriformes, or Perching Birds, in the Collection of the British Museum. *Sturniformes*, containing the families Artamidæ, Sturnidæ, Ploceidæ, and Alaudidæ. Also the families Atrichiidæ and Menuridæ. By R. Bowdler Sharpe. Pp. xvi., 701. Woodcuts and 15 coloured Plates. [With Systematic and Alphabetical Indexes.] 1890, 8vo. 1*l.* 8*s.*

Vol. XIV. Catalogue of the Passeriformes, or Perching Birds, in the Collection of the British Museum. *Oligomyodæ*, or the families Tyrannidæ, Oxyrhamphidæ, Pipridæ, Cotingidæ, Phytotomidæ, Philepittidæ, Pittidæ, Xenicidæ, and Eurylæmidæ. By Philip Lutley Sclater, M.A., F.R.S. Pp. xix., 494. Woodcuts and 26 coloured Plates. [With Systematic and Alphabetical Indexes.] 1888, 8vo. 1*l.* 4*s.*

Vol. XV. Catalogue of the Passeriformes, or Perching Birds, in the Collection of the British Museum. *Tracheophonæ*, or the families Dendrocolaptidæ, Formicariidæ, Conopophagidæ, and Pteroptochidæ. By Philip Lutley Sclater, M.A., F.R.S. Pp. xvii., 371. Woodcuts and 20 coloured Plates. [With Systematic and Alphabetical Indexes.] 1890, 8vo. 1*l.*

Vol. XVI. Catalogue of the Picariæ in the Collection of the British Museum. *Upupæ* and *Trochili*, by Osbert Salvin. *Coraciæ*, of the families Cypselidæ, Caprimulgidæ, Podargidæ, and Steatornithidæ, by Ernst Hartert. Pp. xvi., 703. Woodcuts and 14 coloured Plates. [With Systematic and Alphabetical Indexes.] 1892, 8vo. 1*l.* 16*s.*

Vol. XVII. Catalogue of the Picariæ in the Collection of the British Museum. *Coraciæ* (contin.) and *Halcyones*, with the families Leptosomatidæ, Coraciidæ, Meropidæ, Alcedinidæ, Momotidæ, Totidæ and Coliidæ, by R. Bowdler Sharpe. *Bucerotes* and *Trogones*, by W. R. Ogilvie Grant. Pp. xi., 522. Woodcuts and 17 coloured Plates. [With Systematic and Alphabetical Indexes.] 1892, 8vo. 1*l.* 10*s.*

Catalogue of the Birds in the British Museum—*continued.*

Vol. XVIII. Catalogue of the Picariæ in the Collection of the British Museum. *Scansores*, containing the family Picidæ. By Edward Hargitt. Pp. xv., 597. Woodcuts and 15 coloured Plates. [With Systematic and Alphabetical Indexes.] 1890, 8vo. 1*l.* 6*s.*

Vol. XIX. Catalogue of the Picariæ in the Collection of the British Museum. *Scansores* and *Coccyges* : containing the families Rhamphastidæ, Galbulidæ, and Bucconidæ, by P. L. Sclater ; and the families Indicatoridæ, Capitonidæ, Cuculidæ, and Musophagidæ, by G. E. Shelley. Pp. xii., 484 : 13 coloured Plates. [With Systematic and Alphabetical Indexes.] 1891, 8vo. 1*l.* 5*s.*

Vol. XX. Catalogue of the Psittaci, or Parrots, in the Collection of the British Museum. By T. Salvadori. Pp. xvii., 658. Woodcuts and 18 coloured Plates. [With Systematic and Alphabetical Indexes.] 1891, 8vo. 1*l.* 10*s.*

Vol. XXI. Catalogue of the Columbæ, or Pigeons, in the Collection of the British Museum. By T. Salvadori. Pp. xvii., 676. 15 coloured Plates. [With Systematic and Alphabetical Indexes.] 1893, 8vo. 1*l.* 10*s.*

Vol. XXII. Catalogue of the Game Birds (*Pterocletes*, *Gallinæ*, *Opisthocomi*, *Hemipodii*) in the Collection of the British Museum. By W. R. Ogilvie Grant. Pp. xvi., 585. 8 coloured Plates. [With Systematic and Alphabetical Indexes.] 1893, 8vo. 1*l.* 6*s.*

Vol. XXIII. Catalogue of the Fulicariæ (Rallidæ and Heliornithidæ) and Alectorides (Aramidæ, Eurypygidæ, Mesitidæ, Rhinochetidæ, Gruidæ, Psophiidæ, and Otididæ) in the Collection of the British Museum. By R. Bowdler Sharpe. Pp. xiii., 353. 9 coloured Plates. [With Systematic and Alphabetical Indexes.] 1894, 8vo. 1*l.*

Vol. XXIV. Catalogue of the Limicolæ in the Collection of the British Museum. By R. Bowdler Sharpe. Pp. xii., 794. Woodcuts and 7 coloured Plates. [With Systematic and Alphabetical Indexes.] 1896, 8vo. 1*l.* 5*s.*

Vol. XXV. Catalogue of the Gaviæ and Tubinares in the Collection of the British Museum. Gaviæ (Terns, Gulls, and Skuas), by Howard Saunders. Tubinares (Petrels and Albatrosses), by Osbert Salvin. Pp. xv., 475. Woodcuts and 8 coloured Plates. [With Systematic and Alphabetical Indexes.] 1896, 8vo. 1*l.* 1*s.*

Catalogue of the Birds in the British Museum—*continued.*

Vol. XXVI. Catalogue of the Plataleæ, Herodiones, Steganopodes, Pygopodes, Alcæ, and Impennes in the Collection of the British Museum. Plataleæ (Ibises and Spoonbills) and Herodiones (Herons and Storks), by R. Bowdler Sharpe. Steganopodes (Cormorants, Gannets, Frigate-birds, Tropic-birds, and Pelicans), Pygopodes (Divers and Grebes), Alcæ (Auks), and Impennes (Penguins), by W. R. Ogilvie-Grant. Pp. xvii., 687. Woodcuts and 14 coloured Plates. [With Systematic and Alphabetical Indexes.] 1898, 8vo. 1*l.* 5*s.*

Vol. XXVII. Catalogue of the Chenomorphæ (Palamedeæ, Phoenicopteri, Anseres), Crypturi, and Ratitæ in the Collection of the British Museum. By T. Salvadori. Pp. xv., 636. 19 coloured Plates. [With Systematic and Alphabetical Indexes.] 1895, 8vo. 1*l.* 12*s.*

A Hand-list of the Genera and Species of Birds. [Nomenclator Avium tum Fossilium tum Viventium.] By R. Bowdler Sharpe, LL.D. :—

Vol. IV. Pp. xii., 391. [With Systematic and Alphabetical Indexes.] 1903, 8vo. 10*s.*

Vol. V. Pp. xx., 678. [With Systematic and Alphabetical Indexes.] 1909, 8vo. 1*l.*

List of the Specimens of Birds in the Collection of the British Museum. By George Robert Gray :—

Part III., Sections III. and IV. Capitonidæ and Picidæ. Pp. 137. [With Index.] 1868, 12mo. 1*s.* 6*d.*

Part IV. Columbæ. Pp. 73. [With Index.] 1856, 12mo. 1*s.* 9*d.*

Part V. Gallinæ. Pp. iv., 120. [With an Alphabetical Index.] 1867, 12mo. 1*s.* 6*d.*

Catalogue of the Birds of the Tropical Islands of the Pacific Ocean in the Collection of the British Museum. By George Robert Gray, F.L.S., &c. Pp. 72. [With an Alphabetical Index.] 1859, 8vo. 1*s.* 6*d.*

Catalogue of the Collection of Birds' Eggs in the British Museum (Natural History) :—

Vol. I. Ratitæ. Carinatæ (Tinamiformes—Lariformes). By Eugene W. Oates. Pp. xxiii., 252. 18 Coloured Plates. [With Systematic and Alphabetical Indexes.] 1901, 8vo. 1*l.* 10*s.*

Vol. II. Carinatæ (Charadriiformes—Strigiformes). By Eugene W. Oates. Pp. xx., 400. 15 Coloured Plates. [With Systematic and Alphabetical Indexes.] 1902, 8vo. 1*l.* 10*s.*

Vol. III. Carinatæ (Psittaciformes — Passeriformes). By Eugene W. Oates and Capt. Savile G. Reid. Pp. xxiii., 349. 10 Coloured Plates. [With Systematic and Alphabetical Indexes.] 1903, 8vo. 1*l.* 5*s.*

Vol. IV. Carinatæ (Passeriformes continued). By Eugene W. Oates, assisted by Capt. Savile G. Reid. Pp. xviii., 352. 14 Coloured Plates. [With Systematic and Alphabetical Indexes.] 1905, 8vo. 1*l.* 10*s.*

REPTILES.

Catalogue of the Tortoises, Crocodiles, and Amphisbænians in the Collection of the British Museum. By Dr. J. E. Gray, F.R.S., &c. Pp. viii., 80. [With an Alphabetical Index.] 1844, 12mo. 1*s.*

Catalogue of Shield Reptiles in the Collection of the British Museum. By John Edward Gray, F.R.S., &c.:—

Appendix. Pp. 28. 1872, 4to. 2*s.* 6*d.*

Part II. Emydosaurians, Rhynchocephalia, and Amphisbænians. Pp. vi., 41. 25 Woodcuts. 1872, 4to. 3*s.* 6*d.*

Hand-List of the Specimens of Shield Reptiles in the British Museum. By Dr. J. E. Gray, F.R.S., F.L.S., &c. Pp. iv., 124. [With an Alphabetical Index.] 1873, 8vo. 4*s.*

Catalogue of the Chelonians, Rhynchocephalians, and Crocodiles in the British Museum (Natural History). New Edition. By George Albert Boulenger. Pp. x., 311. 73 Woodcuts and 6 Plates. [With Systematic and Alphabetical Indexes.] 1889, 8vo. 15*s.*

Catalogue of the Lizards in the British Museum (Natural History). Second Edition. By George Albert Boulenger :—

Vol. II. Iguanidæ, Xenosauridæ, Zonuridæ, Anguidæ, Anniellidæ, Helodermatidæ, Varanidæ, Xantusiidæ, Teiidæ, Amphisbænidæ. Pp. xiii., 497. 24 Plates. [With Systematic and Alphabetical Indexes.] 1885, 8vo. 1*l.*

Vol. III. Lacertidæ, Gerrhosauridæ, Scincidæ, Anelytropidæ, Dibamidæ, Chamæleontidæ. Pp. xii., 575. 40 Plates. [With a Systematic Index and an Alphabetical Index to the three volumes.] 1887, 8vo. 1*l.* 6*s.*

Catalogue of the Snakes in the British Museum (Natural History). By George Albert Boulenger, F.R.S., &c. :—

Vol. I., containing the families Typhlopidæ, Glauconiidæ, Boidæ, Ilysiidæ, Uropeltidæ, Xenopeltidæ, and Colubridæ aglyphæ (part). Pp. xiii., 448 : 26 Woodcuts and 28 Plates. [With Systematic and Alphabetical Indexes.] 1893, 8vo. 1*l.* 1*s.*

Vol. II., containing the conclusion of the Colubridæ aglyphæ. Pp. xi., 382 : 25 Woodcuts and 20 Plates. [With Systematic and Alphabetical Indexes.] 1894, 8vo. 17*s.* 6*d.*

Vol. III., containing the Colubridæ (Opisthoglyphæ and Proteroglyphæ), Amblycephalidæ, and Viperidæ. Pp. xiv., 727 : 37 Woodcuts and 25 Plates. [With Systematic Index, and Alphabetical Index to the 3 volumes.] 1896, 8vo. 1*l.* 6*s.*

Catalogue of Colubrine Snakes in the Collection of the British Museum. By Dr. Albert Günther. Pp. xvi., 281. [With Geographic, Systematic, and Alphabetical Indexes.] 1858, 12mo. 4*s.*

BATRACHIANS.

Catalogue of the Batrachia Salientia in the Collection of the British Museum. By Dr. Albert Günther. Pp. xvi., 160. 12 Plates. [With Systematic, Geographic, and Alphabetical Indexes.] 1858, 8vo. 6*s.*

FISHES.

Catalogue of the Fishes in the British Museum. Second Edition. Vol. I. Catalogue of the Perciform Fishes in the British Museum. Vol. I. Containing the Centrarchidæ,

Catalogue of the Fishes in the British Museum—*continued.*

Percidæ, and Serranidæ (part). By George Albert Boulenger, F.R.S. Pp. xix., 394. Woodcuts and 15 Plates. [With Systematic and Alphabetical Indexes.] 1895, 8vo 15*s.*

Catalogue of Fish collected and described by Laurence Theodore Gronow, now in the British Museum. Pp. vii., 196. [With a Systematic Index.] 1854, 12mo. 3*s.* 6*d.*

Catalogue of Lophobranchiate Fish in the Collection of the British Museum. By J. J. Kaup, Ph.D., &c. Pp. iv., 80. 4 Plates. [With an Alphabetical Index.] 1856, 12mo. 2*s.*

Catalogue of the Fresh-water Fishes of Africa in the British Museum (Natural History). By G. A. Boulenger, F.R.S. :—

Vol. I. Pp. xi., 373 : 270 text-figures. [With Systematic and Alphabetical Indexes.] 1909, imp. 8vo. 1*l.* 12*s.* 6*d.*

Vol. II. Pp. xii., 529 : 382 text-figures. [With Systematic and Alphabetical Indexes.] 1911, imp. 8vo. 2*l.* 5*s.*

MOLLUSCA.

Guide to the Systematic Distribution of Mollusca in the British Museum. Part I. By John Edward Gray, Ph.D., F.R.S., &c. Pp. xii., 230. 121 Woodcuts. 1857, 8vo. 5*s.*

Catalogue of Pulmonata, or Air Breathing Mollusca, in the Collection of the British Museum. Part I. By Dr. Louis Pfeiffer. Pp. iv., 192. Woodcuts. 1855, 12mo. 2*s.* 6*d.*

Catalogue of the Auriculidæ, Proserpinidæ, and Truncatellidæ in the Collection of the British Museum. By Dr. Louis Pfeiffer. Pp. iv., 150. Woodcuts. 1857, 12mo. 1*s.* 9*d.*

List of the Mollusca in the Collection of the British Museum. By John Edward Gray, Ph.D., F.R.S., &c. :—

Part II. Olividæ. Pp. 41. 1865, 12mo. 1*s.*

Catalogue of the Conchifera, or Bivalve Shells, in the Collection of the British Museum. By M. Deshayes :—

Part I. Veneridæ, Cyprinidæ, Glauconomidæ, and Petricoladæ. Pp. iv., 216. 1853, 12mo. 3*s.*

Part II. Petricoladæ (concluded); Corbiculadæ. Pp. 217–292. [With an Alphabetical Index to the two parts.] 1854, 12mo. 6*d.*

BRACHIOPODA.

Catalogue of Brachiopoda Ancylopoda or Lamp Shells in the Collection of the British Museum. [*Issued as* "Catalogue of the Mollusca, Part IV."] Pp. iv., 128. 25 Woodcuts. [With an Alphabetical Index.] 1853, 12mo. 3*s*.

POLYZOA.

Catalogue of Marine Polyzoa in the Collection of the British Museum. Part III. Cyclostamata. By George Busk, F.R.S. Pp. viii., 39. 38 plates. [With a Systematic Index]. 1875, 8vo. 5*s*.

CRUSTACEA.

Catalogue of the Specimens of Amphipodous Crustacea in the Collection of the British Museum. By C. Spence Bate, F.R.S., &c. Pp. iv., 399. 58 Plates. [With an Alphabetical Index.] 1862, 8vo. 1*l*. 5*s*.

ARACHNIDA.

Descriptive Catalogue of the Spiders of Burma, based upon the Collection made by Eugene W. Oates and preserved in the British Museum. By T. Thorell. Pp. xxxvi., 406. [With Systematic List and Alphabetical Index.] 1895, 8vo. 10*s*. 6*d*.

INSECTS.

Coleopterous Insects.

Nomenclature of Coleopterous Insects in the Collection of the British Museum :—

Part VII. Longicornia, I. By Adam White. Pp. iv., 174. 4 Plates. 1853, 12mo. 2*s*. 6*d*.

Part VIII. Longicornia, II. By Adam White. Pp. 237. 6 Plates. 1855, 12mo. 3*s*. 6*d*.

Illustrations of Typical Specimens of Coleoptera in the Collection of the British Museum. Part I. Lycidæ. By Charles Owen Waterhouse. Pp. x., 83. 18 Coloured Plates. [With Systematic and Alphabetical Indexes.] 1879, 8vo. 16*s*.

Catalogue of the Coleopterous Insects of Madeira in the Collection of the British Museum. By T. Vernon Wollaston, M.A., F.L.S. Pp. xvi., 234 : 1 Plate. [With a Topographical Catalogue and an Alphabetical Index.] 1857, 8vo. 3*s*.

Catalogue of the Coleopterous Insects of the Canaries in the Collection of the British Museum. By T. Vernon Wollaston, M.A., F.L.S. Pp. xiii., 648. [With Topographical and Alphabetical Indexes.] 1864, 8vo. 10*s.* 6*d.*

Catalogue of Halticidæ in the Collection of the British Museum. By the Rev. Hamlet Clark, M.A., F.L.S. Physapodes and Œdipodes. Part I. Pp. xii., 301. Frontispiece and 9 Plates. 1860, 8vo. 7*s.*

Catalogue of Hispidæ in the Collection of the British Museum. By Joseph S. Baly, M.E.S., &c. Part I. Pp. x., 172. 9 Plates. [With an Alphabetical Index.] 1858, 8vo. 6*s.*

Hymenopterous Insects.

Catalogue of Hymenopterous Insects in the Collection of the British Museum. By Frederick Smith. 12mo. :—

Part II. Apidæ. Pp. 199–465. 6 Plates. [With an Alphabetical Index.] 1854. 6*s.*

Part III. Mutillidæ and Pompilidæ. Pp. 206. 6 Plates 1855. 6*s.*

Part IV. Sphegidæ, Larridæ, and Crabronidæ. Pp. 207–497. 6 Plates. [With an Alphabetical Index.] 1856. 6*s.*

Part V. Vespidæ. Pp. 147. 6 Plates. [With an Alphabetical Index.] 1857. 6*s.*

Part VI. Formicidæ. Pp. 216. 14 Plates. [With an Alphabetical Index.] 1858. 6*s.*

Part VII. Dorylidæ and Thynnidæ. Pp. 76. 3 Plates. [With an Alphabetical Index.] 1859. 2*s.*

List of Hymenoptera, with descriptions and figures of the Typical Specimens in the British Museum. Vol. I., Tenthredinidæ and Siricidæ. By W. F. Kirby. Pp. xxviii., 450. 16 Coloured Plates. [With Systematic and Alphabetical Indexes.] 1882, 8vo. 1*l.* 18*s.*

Dipterous Insects.

A Monograph of the Culicidæ, or Mosquitoes. Mainly compiled from the Collections received at the British Museum from various parts of the world in connection with the

Investigation into the cause of Malaria conducted by the Colonial Office and the Royal Society. By Fred. V. Theobald, M.A., &c. :—

Vol. III. Pp. xvii., 359 : 17 plates, 1 diagram, and 193 illustrations in text. 1903, 8vo. 1*l.* 1*s.*

Vol. IV. Pp. xix., 639 : 16 plates and 297 text-figures. [With Index.] 1907, 8vo. 1*l.* 12*s.* 6*d.*

Vol. V. Pp. xv., 646 : 6 plates and 261 text-figures. [With Index.] 1910, 8vo. 1*l.* 5*s.*

Handbook of the Tsetse-Flies [Genus Glossina]. By Ernest Edward Austen. With 10 coloured plates and 24 text-figures, by A. J. Engel Terzi, and 1 map. Pp. x., 110. [With Index.] 1911, roy. 8vo. 5*s.* 6*d.*

Illustrations of African Blood-sucking Flies other than Mosquitoes and Tsetse-Flies. By Ernest Edward Austen, with coloured figures by Grace Edwards. Pp. xv., 221 : 13 coloured plates, 3 text-figures. 1909, roy. 8vo. 1*l.* 7*s.* 6*d.*

Lepidopterous Insects.

Catalogue of the Lepidoptera Phalænæ in the British Museum. By Sir George F. Hampson, Bart. :—

Vol. I. Catalogue of the Syntomidæ in the Collection of the British Museum. Pp. xxi., 559 : 285 woodcuts. [With Systematic and Alphabetical Indexes.] 1898, 8vo. 15*s.*

——Atlas of 17 Coloured Plates, 8vo. 15*s.*

Vol. II. Catalogue of the Arctiadæ (Nolinæ, Lithosianæ) in the Collection of the British Museum. Pp. xx., 589 : 411 woodcuts. [With Systematic and Alphabetical Indexes.] 1900, 8vo. 18*s.*

——Atlas of 18 Coloured Plates (xviii.–xxxv.), 8vo. 15*s.*

Vol. III. Catalogue of the Arctiadæ (Arctianæ) and Agaristidæ in the Collection of the British Museum. Pp. xix., 690 : 294 woodcuts. [With Systematic and Alphabetical Indexes.] 1901, 8vo. 15*s.*

——Atlas of 19 Coloured Plates (xxxvi.–liv.), 8vo. 16*s.*

Vol. IV. Catalogue of the Noctuidæ [Agrotinæ]. Pp. xx., 689 : 125 woodcuts. [With Systematic and Alphabetical Indexes.] 1903, 8vo. 15*s.*

——Atlas of 23 Coloured Plates (lv.–lxxvii.), 8vo. 16*s.*

Vol. V. Catalogue of the Noctuidæ [Hadeninæ]. Pp. xvi., 634 : 172 woodcuts. [With Systematic and Alphabetical Indexes.] 1905, 8vo. 15*s.*

——Atlas of 18 Coloured Plates (lxxviii.–xcv.), 8vo. 15*s.*

Catalogue of Lepidoptera Phalænæ—*continued.*

Vol. VI. Catalogue of the Noctuidæ [Cucullianæ]. Pp. xiv., 532 : 172 woodcuts. [With Systematic and Alphabetical Indexes.] 1906, 8vo. 15*s.*

——Atlas of 12 Coloured Plates (xcvi.–cvii.), 8vo. 10*s.*

Vol. VII. Catalogue of the Noctuidæ [Acronyctinæ]. Pp. xv., 709 : 184 woodcuts. [With Systematic and Alphabetical Indexes.] 1908, 8vo. 17*s.*

——Atlas of 15 Coloured Plates (cviii.–cxxii.), 8vo. 13*s.*

Vol. VIII. Catalogue of the Noctuidæ [Acronyctinæ, II.]. Pp. xiv., 583 : 162 woodcuts. [With Table of the Phylogeny of the Acronyctinæ, and Systematic and Alphabetical Indexes.] 1909, 8vo. 15*s.*

——Atlas of 14 Coloured Plates (cxxiii.–cxxxvi.), 8vo. 12*s.*

Vol. IX. Catalogue of the Noctuidæ [Acronyctinæ, III.] Pp. xv., 552 : 247 woodcuts. [With Table of the Phylogeny of the Acronyctinæ, and Systematic and Alphabetical Indexes.] 1910, 8vo. 15*s.*

——Atlas of 11 Coloured Plates (cxxxvii.–cxlvii.), 8vo. 12*s.*

Vol. X. Catalogue of the Noctuidæ [Erastrianæ]. Pp. xix., 829 : 214 woodcuts. [With Table of the Phylogeny of the Erastrianæ, and Systematic and Alphabetical Indexes.] 1910, 8vo. 1*l.*

——Atlas of 26 Coloured Plates (cxlviii.-clxxiii.). 1911, 8vo. 1*l.*

Illustrations of Typical Specimens of Lepidoptera Heterocera in the Collection of the British Museum :—

Part V. By Arthur Gardiner Butler. Pp. xii., 74. 78–100 Coloured Plates. [With a Systematic Index.] 1881, 4to. 2*l.* 10*s.*

Part VI. By Arthur Gardiner Butler. Pp. xv., 89. 101–120 Coloured Plates. [With a Systematic Index.] 1886, 4to. 2*l.* 4*s.*

Part VII. By Arthur Gardiner Butler. Pp. iv., 124. 121–138 Coloured Plates. [With a Systematic List.] 1889, 4to. 2*l.*

Part VIII. The Lepidoptera Heterocera of the Nilgiri District. By George Francis Hampson. Pp. iv., 144. 139–156 Coloured Plates. [With a Systematic List.] 1891, 4to. 2*l.*

Part IX. The Macrolepidoptera Heterocera of Ceylon. By George Francis Hampson. Pp. v., 182. 157–176 Coloured Plates. [With a General Systematic List of Species collected in, or recorded from, Ceylon.] 1893, 4to. 2*l.* 2*s.*

Catalogue of the Collection of Palæarctic Butterflies formed by the late John Henry Leech, and presented to the Trustees of the British Museum by his Mother, Mrs. Eliza Leech. By Richard South, F.E.S. Pp. vi., 228. 2 Coloured Plates. With a Portrait and Biographical Memoir of Mr. Leech. 1902, 4to. 1*l.*

Catalogue of Diurnal Lepidoptera described by Fabricius in the Collection of the British Museum. By Arthur Gardiner Butler, F.L.S., &c. Pp. iv., 303. 3 Plates. 1869, 8vo. 7*s.* 6*d.*

List of the Specimens of Lepidopterous Insects in the Collection of the British Museum. By Francis Walker. 12mo. :—

Part XXV. ———— Pp. 1281–1477. 1862. 3*s.*

Part XXVI. ———— Pp. 1478–1796. [With an Alphabetical Index to Parts XX.–XXVI.] 1862. 4*s.* 6*d.*

Part XXVIII. Tortricites and Tineites. Pp. 287–561. 1863. 4*s.*

Part XXX. ———— Pp. 836–1096. [With an Alphabetical Index to Parts XXVII.–XXX.] 1864. 4*s.*

Part XXXI. Supplement. Pp. 1–321. 1864. 5*s.*

Part XXXIII.———— Part 3. Pp. 707–1120. 1865. 6*s.*

Part XXXIV.———— Part 4. Pp. 1121–1533. 1865. 5*s.* 6*d.*

Neuropterous Insects.

Catalogue of the Specimens of Neuropterous Insects in the Collection of the British Museum. By Dr. H. Hagen. Part I. Termitina. Pp. 34. 1858, 12mo. 6*d.*

Orthopterous Insects.

Catalogue of Orthopterous Insects in the Collection of the British Museum. Part I. Phasmidæ. By John Obadiah Westwood, F.L.S., &c. Pp. 195. 48 Plates. [With an Alphabetical Index.] 1859, 4to. 3*l.*

Catalogue of the Specimens of Blattariæ in the Collection of the British Museum. By Francis Walker, F.L.S., &c. Pp. 239. [With an Alphabetical Index.] 1868, 8vo. 5*s.* 6*d.*

Catalogue of the Specimens of Dermaptera Saltatoria in the Collection of the British Museum. By Francis Walker, F.L.S., &c. :—

Part II. Locustidæ (continued). Pp. 225–423. [With an Alphabetical Index.] 1869, 8vo. 4*s.* 6*d.*

Part III. Locustidæ (continued).—Acrididæ. Pp. 425–604. [With an Alphabetical Index.] 1870, 8vo. 4*s.*

Part IV. Acrididæ (continued). Pp. 605–809. [With an Alphabetical Index.] 1870, 8vo. 6*s.*

Part V. Tettigidæ.—Supplement to the Catalogue of Blattariæ.—Supplement to the Catalogue of Dermaptera Saltatoria (with remarks on the Geographical Distribution of Dermaptera). Pp. 811–850; 43; 116. [With Alphabetical Indexes.] 1870, 8vo. 6*s.*

Synonymic Catalogue of Orthoptera. By W. F. Kirby :—

Vol. I. Orthoptera Euplexoptera, Cursoria, et Gressoria. (Forficulidæ, Hemimeridæ, Blattidæ, Mantidæ, Phasmidæ.) Pp. x., 501. [With Index.] 1904, 8vo. 10*s.*

Vol. II. Orthoptera Saltatoria, Part I. (Achetidæ et Phasgonuridæ.) Pp. viii., 562. [With Index.] 1906, 8vo. 15*s.*

Vol. III. Orthoptera Saltatoria, Part II. (Locustidæ vel Acridiidæ.) Pp. vii., 674. [With Index.] 1910, 8vo. 1*l.*

Hemipterous Insects.

Catalogue of the Specimens of Heteropterous Hemiptera in the Collection of the British Museum. By Francis Walker, F.L.S., &c. 8vo. :—

Part VI. Pp. 210. [With Alphabetical Index.] 1873. 5*s.*

Part VII. Pp. 213. [With Alphabetical Index.] 1873. 6*s.*

Homopterous Insects.

A Synonymic Catalogue of Homoptera. Part I. Cicadidæ. By W. L. Distant. Pp. 207. [Index.] 1906, 8vo. 5*s.*

VERMES.

Catalogue of the Species of Entozoa, or Intestinal Worms, contained in the Collection of the British Museum. By Dr. Baird. Pp. iv., 132. 2 Plates. [With an Index of the Animals in which the Entozoa mentioned in the Catalogue are found, and an Index of Genera and Species.] 1853, 12mo. 2*s*.

ANTHOZOA.

Catalogue of Sea-pens or Pennatulariidæ in the Collection of the British Museum. By J. E. Gray, F.R.S., &c. Pp. iv., 40. 2 Woodcuts. 1870, 8vo. 1*s*. 6*d*.

Catalogue of Lithophytes or Stony Corals in the Collection of the British Museum. By J. E. Gray, F.R.S., &c. Pp. iv., 51. 14 Woodcuts. 1870, 8vo. 3*s*.

Catalogue of the Madreporarian Corals in the British Museum (Natural History) :—

Vol. I. The Genus Madrepora. By George Brook. Pp. xi., 212. 35 Collotype Plates. [With Systematic and Alphabetical Indexes, and Explanation of the Plates.] 1893, 4to. 1*l*. 4*s*.

Vol. II. The Genus Turbinaria; the Genus Astræopora. By Henry M. Bernard, M.A. Cantab., F.L.S., F.Z.S. Pp. iv., 106. 30 Collotype and 3 Lithographic Plates. [With Index of Generic and Specific Names, and Explanation of the Plates.] 1896, 4to. 18*s*.

Vol. III. The Genus Montipora; the Genus Anacropora. By Henry M. Bernard, M.A., &c. Pp. vii., 192. 30 Collotype and 4 Lithographic Plates. [With Systematic Index, Index of Generic and Specific Names, and Explanation of the Plates.] 1897, 4to. 1*l*. 4*s*.

Vol. IV. The Family Poritidæ. I.—The Genus Goniopora. By Henry M. Bernard, M.A. Pp. viii., 206. 12 Collotype and 4 Lithographic Plates. [With Index of Generic and Specific Names, and Explanation of the Plates.] 1903, 4to. 1*l*.

Vol. V. The Family Poritidæ. II.—The Genus Porites. Part I.—Porites of the Indo-Pacific Region. By Henry M. Bernard, M.A. Pp. vi., 303. 35 Plates. [With Index of Generic and Specific Names and Explanation of the Plates.] 1905, 4to. 1*l*. 15*s*.

Vol. VI. The Family Poritidæ. II.—The Genus Porites. Part II.—Porites of the Atlantic and West Indies, with the European Fossil Forms. The Genus Goniopora, a supplement to Vol. IV. By Henry M. Bernard, M.A. Pp. vi., 173. 16 Collotype and 1 Lithographic Plates. [With Index of Generic and Specific Names, and Explanation of the Plates.] 1906, 4to. 1*l*.

BRITISH ANIMALS.

Catalogue of British Birds in the Collection of the British Museum. By George Robert Gray, F.L.S., F.Z.S., &c. Pp. xii., 248. [With a List of Species.] 1863, 8vo. 3*s.* 6*d.*

Catalogue of British Hymenoptera in the Collection of the British Museum. Second edition. Part I. Andrenide and Apidæ. By Frederick Smith, M.E.S. New issue Pp. xi. 236. 11 Plates. [With Systematic and Alphabetical Index.] 1891, 8vo. 6*s.*

Catalogue of British Fossorial Hymenoptera, Formicidæ, and Vespidæ in the Collection of the British Museum. By Frederick Smith, V.P.E.S. Pp. 236. 6 Plates. [With an Alphabetical Index.] 1858, 12mo. 6*s.*

Catalogue of British Hymenoptera of the Family Chalcididæ. By Claude Morley, F.Z.S., F.E.S. Pp. 74. [Index.] 1910. 8vo. 3*s.* 6*d.*

Illustrations of British Blood-sucking Flies, with notes by Ernest Edward Austen, Assistant, Department of Zoology, British Museum (N.H.). Pp. 74. 34 Coloured Plates. 1906, roy. 8vo. 1*l.* 5*s.*

A Catalogue of the British Non-parasitical Worms in the Collection of the British Museum. By George Johnston, M.D., Edin., F.R.C.L., Ed., LL.D., Marischal Coll., Aberdeen, &c. Pp. 365. Woodcuts and 24 Plates. [With an Alphabetical Index.] 1865, 8vo. 7*s.*

Catalogue of the British Echinoderms in the British Museum (Natural History). By F. Jeffrey Bell, M.A. Pp. xvii., 202. Woodcuts and 16 Plates (2 Coloured). [With Table of Contents, Tables of Distribution, Alphabetical Index, Description of the Plates, &c.] 1892, 8vo. 12*s.* 6*d.*

List of the Specimens of British Animals in the Collection of the British Museum; with Synonyma and References to figures. 12mo.:—

Part V. Lepidoptera. By J. F. Stephens. 2nd Edition. Revised by H. T. Stainton and E. Shepherd. Pp. iv., 224. 1856. 1*s.* 9*d.*

Part VI. Hymenoptera. By F. Smith. Pp. 134. 1851. 2*s.*

Part VII. Mollusca, Acephala and Brachiopoda. By Dr. J. E. Gray. Pp. iv., 167. 1851. 3*s.* 6*d.*

Part VIII. Fish. By Adam White. Pp. xxiii., 164. (With Index and List of Donors.) 1851. 3*s.* 6*d.*

List of the Specimens of British Animals in the Collection of the British Museum—*continued.*

Part XI. Anoplura, or Parasitic Insects. By H. Denny. Pp. iv., 51. 1852. 1*s.*

Part XII. Lepidoptera (continued). By James F. Stephens. Pp. iv., 54. 1852. 9*d.*

Part XIII. Nomenclature of Hymenoptera. By Frederick Smith. Pp. iv., 74. 1853. 1*s.* 4*d.*

Part XIV. Nomenclature of Neuroptera. By Adam White. Pp. iv., 16. 1853. 6*d.*

Part XV. Nomenclature of Diptera, I. By Adam White. Pp. iv., 42. 1853. 1*s.*

Part XVI. Lepidoptera (completed). By H. T. Stainton. Pp. 199. [With an Index.] 1854. 3*s.*

PLANTS.

Illustrations of Australian Plants collected in 1770 during Captain Cook's Voyage round the World in H.M.S. "Endeavour." By the Right Hon. Sir Joseph Banks, Bart., K.B., P.R.S., and Dr. Daniel Solander, F.R.S. [Being a series of lithographic reproductions of copper-plates engraved after paintings by F. P. Nodder, James Miller, J. F. Miller, and John Cleveley.] With Introduction and Determinations by James Britten, F.L.S., Senior Assistant, Department of Botany, British Museum :—

Part I.—101 Plates, with 31 pages of descriptive text. 1900, fol. 1*l.* 5*s.*

Part II.—142 Plates (pls. 101–243), with 41 pages of descriptive text (pp. 35–75). 1901, fol. 1*l.* 15*s.*

Part III.—77 Plates (pls. 244–318, 45A, and 122), with 26 pages of descriptive text, including Index to the whole work (pp. 77–102), and 3 maps. 1905, fol. 1*l.* 5*s.*

Catalogue of the African Plants collected by Dr. Friedrich Welwitsch in 1853–61 :—

Vol. I. Dicotyledons. By William Philip Hiern, M.A., F.L.S., &c. :—

Part I. [Ranunculaceæ to Rhizophoraceæ.] Pp. xxvi., 336. [With Portrait of Dr. Welwitsch. Introduction, Bibliography, and Index of Genera.] 1896, 8vo. 7*s.* 6*d.*

Part II. Combretaceæ to Rubiaceæ. Pp. 337–510. [With Index of Genera.] 1898, 8vo. 4*s.*

Part III. Dipsaceæ to Scrophulariaceæ. Pp. 511–784. [With Index of Genera.] 1898, 8vo. 5*s.*

Catalogue of the African Plants collected by Dr. Friedrich Welwitsch in 1853–61—*continued.*

Vol. I.—*continued.*

Part IV. Lentibulariaceæ to Ceratophylleæ. Pp. 785–1035. [With Index.] 1900, 8vo. 5*s.*

Vol. II. Monocotyledons, Gymnosperms, and Cryptogams :—

Part I. Monocotyledons and Gymnosperms. By Alfred Barton Rendle, M.A., D.Sc., F.L.S., Assistant, Department of Botany. Pp. 260. [With Index of Genera.] 1899, 8vo. 6*s.*

Part II. Cryptogamia. Pp. 261–566. [With Table of Errata, and General Index to the whole work.] 1901, 8vo. 6*s.*

Vascular Cryptogams	... By	William Carruthers, F.R.S.
Mosses	... „	Antony Gepp, M.A., F.L.S.
Hepatics	... „	F. Stephani.
Marine Algæ ...	... „	Ethel S. Barton.
Freshwater Algæ ...	... „	W. West, F.L.S., and G. S. West, B.A.
Diatomaceæ ...	... „	Thomas Comber, F.L.S.
Lichenes	... „	E. A. Wainio.
Fungi	... „	Annie Lorrain Smith.
Mycetozoa	... „	Arthur Lister, F.R.S.

Flora of Jamaica, containing descriptions of the Flowering Plants known from the Island. By William Fawcett, B.Sc., F.L.S., etc., and A. B. Rendle, M.A., D.Sc., F.R.S., F.L.S., etc. Vol. I. Orchidaceæ. Pp. xx., 150 : 32 Plates. [With Index of Genera and Species.] 1910, 8vo. 10*s.* 6*d.*

Synopsis of the British Basidiomycetes : a Descriptive Catalogue of the Drawings and Specimens in the Department of Botany, British Museum. By Worthington George Smith, F.L.S. Pp. 531. 5 Plates and 145 Figures in Text. [With Index.] 1908, 8vo. 10*s.*

A Monograph of Lichens found in Britain : being a Descriptive Catalogue of the Species in the Herbarium of the British Museum :—

Part II. By Annie Lorrain Smith, F.L.S. Pp. [viii.,] 409 : 59 Plates. [With List of Plates, Glossary, and Index.] 1911, 8vo. 1*l.*

A Monograph of the Mycetozoa : a Descriptive Catalogue of the Species in the Herbarium of the British Museum. By Arthur Lister, F.R.S., F.L.S. Second Edition, revised by Gulielma Lister, F.L.S. Pp. 304. 201 Plates (120 coloured). 56 Woodcuts. [With Indexes, Bibliography, Glossary, etc.] 1911, 8vo. 1*l.* 10*s.*

List of British Diatomaceæ in the Collection of the British Museum. By the Rev. W. Smith, F.L.S., &c. Pp. iv., 55. 1859, 12mo. 1*s.*

FOSSILS.

Catalogue of the Fossil Mammalia in the British Museum (Natural History). By Richard Lydekker, B.A., F.G.S.:—

Part I. Containing the Orders Primates, Chiroptera, Insectivora, Carnivora, and Rodentia. Pp. xxx., 268. 33 Woodcuts. [With Systematic and Alphabetical Indexes.] 1885, 8vo. 5*s*.

Part II. Containing the Order Ungulata, Suborder Artiodactyla. Pp. xxii., 324. 39 Woodcuts. [With Systematic and Alphabetical Indexes.] 1885, 8vo. 6*s*.

Part III. Containing the Order Ungulata, Suborders Perissodactyla, Toxodontia, Condylarthra, and Amblypoda. Pp. xvi., 186. 30 Woodcuts. [With Systematic Index, and Alphabetical Index of Genera and Species, including Synonyms.] 1886, 8vo. 4*s*.

Part IV. Containing the Order Ungulata, Suborder Proboscidea. Pp. xxiv., 235. 33 Woodcuts. [With Systematic Index, and Alphabetical Index of Genera and Species, including Synonyms.] 1886, 8vo. 5*s*.

Part V. Containing the Group Tillodontia, the Orders Sirenia, Cetacea, Edentata, Marsupialia, Monotremata, and Supplement. Pp. xxxv., 345. 55 Woodcuts. [With Systematic Index, and Alphabetical Index of Genera and Species, including Synonyms.] 1887, 8vo. 6*s*.

Catalogue of the Fossil Birds in the British Museum (Natural History). By Richard Lydekker, B.A. Pp. xxvii., 368. 75 Woodcuts. [With Systematic Index, and Alphabetical Index of Genera and Species, including Synonyms.] 1891, 8vo. 10*s*. 6*d*.

Catalogue of the Fossil Reptilia and Amphibia in the British Museum (Natural History). By Richard Lydekker, B.A., F.G.S. :—

Part I. Containing the Orders Ornithosauria, Crocodilia, Dinosauria, Squamata, Rhynchocephalia, and Proterosauria. Pp. xxviii., 309. 69 Woodcuts. [With Systematic Index, and Alphabetical Index of Genera and Species, including Synonyms.] 1888, 8vo. 7*s*. 6*d*.

Part II. Containing the Orders Ichthyopterygia and Sauropterygia. Pp. xxi., 307. 85 Woodcuts. [With Systematic Index, and Alphabetical Index of Genera and Species, including Synonyms.] 1889, 8vo. 7*s*. 6*d*.

Part III. Containing the Order Chelonia. Pp. xviii., 239. 53 Woodcuts. [With Systematic Index, and Alphabetical Index of Genera and Species including Synonyms.] 1889, 8vo. 7*s*. 6*d*.

Part IV. Containing the Orders Anomodontia, Ecaudata, Caudata, and Labyrinthodontia; and Supplement.

Catalogue of the Fossil Reptilia and Amphibia in the British Museum—*continued.*

Pp. xxiii., 295. 66 Woodcuts. [With Systematic Index, Alphabetical Index of Genera and Species, including Synonyms, and Alphabetical Index of Genera and Species to the entire work.] 1890, 8vo. 7*s.* 6*d.*

A descriptive Catalogue of the Marine Reptiles of the Oxford Clay. Based on the Leeds Collection in the British Museum (Natural History), London. Part I. By C. W. Andrews, D.Sc., F.R.S. Pp. xxiii., 205 : 94 Text-figures, 11 Plates. [With Systematic and Alphabetical Indexes, List of Illustrations, Explanations of Plates, &c.] 1910, 4to. 1*l.* 5*s.*

Catalogue of the Fossil Fishes in the British Museum (Natural History). By Arthur Smith Woodward, LLD., F.R.S., F.G.S., &c. :—

Part I. Containing the Elasmobranchii. Pp. xlvii., 474. 13 Woodcuts and 17 Plates. [With Alphabetical Index, and Systematic Index of Genera and Species.] 1889, 8vo. 1*l.* 1*s.*

Part II. Containing the Elasmobranchii (Acanthodii), Holocephali, Ichthyodorulites, Ostracodermi, Dipnoi, and Teleostomi (Crossopterygii and Chondrostean Actinopterygii). Pp. xliv., 567. 58 Woodcuts and 16 Plates. [With Alphabetical Index, and Systematic Index of Genera and Species.] 1891, 8vo. 1*l.* 1*s.*

Part III. Containing the Actinopterygian Teleostomi of the Orders Chondrostei (concluded), Protospondyli, Aetheospondyli, and Isospondyli (in part). Pp. xlii., 544. 45 Woodcuts and 18 Plates. [With Alphabetical Index, and Systematic Index of Genera and Species.] 1895, 8vo. 1*l.* 1*s.*

Part IV. Containing the Actinopterygian Teleostomi of the Suborders Isospondyli (in part), Ostariophysi, Apodes, Percesoces, Hemibranchii, Acanthopterygii, and Anacanthini. Pp. xxxix., 636. 22 Woodcuts and 19 Plates. [With Alphabetical Index, and Systematic Index of Genera and Species.] 1901, 8vo. 1*l.* 1*s.*

A descriptive Catalogue of the Tertiary Vertebrata of the Fayûm, Egypt. Based on the Collection of the Egyptian Government in the Geological Museum, Cairo, and on the Collection in the British Museum (Natural History), London. By C. W. Andrews, D.Sc. Pp. xxxvii., 324 : 98 Text Figures and 26 Plates. [With Systematic and Alphabetical Indexes.] 1906, 4to. 1*l.* 15*s.*

Systematic List of the Edwards Collection of British Oligocene and Eocene Mollusca in the British Museum (Natural

History), with references to the type-specimens from similar horizons contained in other collections belonging to the Geological Department of the Museum. By Richard Bullen Newton, F.G.S. Pp. xxviii., 365. [With table of Families and Genera, Bibliography, Correlation-table, Appendix, and Alphabetical Index.] 1891, 8vo. 6*s*.

Catalogue of Tertiary Mollusca in the Department of Geology, British Museum (Natural History). Part I. The Australasian Tertiary Mollusca. By George F. Harris, F.G.S., &c. Pp. xxvi., 407. 8 Plates. [With Table of Families, Genera, and Sub-Genera, and Index.] 1897, 8vo. 10*s*.

Catalogue of the Fossil Cephalopoda in the British Museum (Natural History) :—

Part I. Containing part of the Suborder Nautiloidea, consisting of the families Orthoceratidæ, Endoceratidæ, Actinoceratidæ, Gomphoceratidæ, Ascoceratidæ, Poterioceratidæ, Cyrtoceratidæ, and Supplement. By Arthur H. Foord, F.G.S. Pp. xxxi., 344. 51 Woodcuts. [With Systematic Index, and Alphabetical Index of Genera and Species, including Synonyms.] 1888, 8vo. 10*s*. 6*d*.

Part II. Containing the remainder of the Suborder Nautiloidea, consisting of the families Lituitidæ, Trochoceratidæ, Nautilidæ, and Supplement. By Arthur H. Foord, F.G.S. Pp. xxviii., 407. 86 Woodcuts. [With Systematic Index, and Alphabetical Index of Genera and Species, including Synonyms.] 1891, 8vo. 15*s*.

Part III. Containing the Bactritidæ, and part of the Suborder Ammonoidea. By Arthur H. Foord, Ph.D., F.G.S., and George Charles Crick, A.R.S.M., F.G.S. Pp. xxxiii., 303. 146 Woodcuts. [With Systematic Index of Genera and Species, and Alphabetical Index.] 1897, 8vo. 12*s*. 6*d*.

List of the Types and Figured Specimens of Fossil Cephalopoda in the British Museum (Natural History). By G. C. Crick, F.G.S. Pp. 103. [With Index.] 1898, 8vo. 2*s*. 6*d*.

A Catalogue of British Fossil Crustacea, with their Synonyms and the Range in Time of each Genus and Order. By Henry Woodward, F.R.S. Pp. xii., 155. [With an Alphabetical Index.] 1877, 8vo. 5*s*.

Catalogue of the Fossil Bryozoa in the Department of Geology, British Museum (Natural History):—

The Jurassic Bryozoa. By J. W. Gregory, D.Sc., F.G.S., F.Z.S. Pp. [viii.,] 239 : 22 Woodcuts and 11 Plates. [With List of Species and Distribution, Bibliography, Index, and Explanation of Plates.] 1896, 8vo. 10*s*.

Catalogue of the Fossil Bryozoa in the British Museum—*cont.*

The Cretaceous Bryozoa. By J. W. Gregory, D.Sc., F.R.S., &c. :—

Vol. I. Pp. xiv., 457 : 64 Woodcuts and 17 Plates. [With Index and Explanation of Plates.] 1899, 8vo. 16*s.*

Vol. II. Pp. xlviii., 346. 75 Woodcuts and 9 Plates. [With List of Localities, Bibliography, Subject and Systematic Indexes, and Explanation of Plates.] 1909, 8vo. 13*s.*

Catalogue of the Blastoidea in the Geological Department of the British Museum (Natural History), with an account of the morphology and systematic position of the group, and a revision of the genera and species. By Robert Etheridge, jun., of the Department of Geology, British Museum (Natural History), and P. Herbert Carpenter, D.Sc., F.R.S., F.L.S. (of Eton College). Pp. xv., 322. 20 Plates. [With Preface by Dr. H. Woodward, Table of Contents, General Index, Explanations of the Plates, &c.] 1886, 4to. 1*l.* 5*s.*

The Genera and Species of Blastoidea, with a List of the Specimens in the British Museum (Natural History). By F. A. Bather, M.A., F.G.S., of the Geological Department. Pp. x., 70. 1 Woodcut. 1899, 8vo. 3*s.*

Catalogue of the Palæozoic Plants in the Department of Geology and Palæontology, British Museum (Natural History). By Robert Kidston, F.G.S. Pp. viii., 288. [With a list of works quoted, and an Index.] 1886, 8vo. 5*s.*

Catalogue of the Mesozoic Plants in the Department of Geology, British Museum (Natural History). By A. C. Seward, M.A., F.R.S., F.G.S., University Lecturer in Botany and Fellow of Emanuel College, Cambridge :—

Part I. The Wealden Flora. Part I. Thallophyta—Pteridophyta. Pp. xxxviii., 179. 17 Woodcuts and 11 Plates. [With Alphabetical Index, Explanations of the Plates, &c.] 1894, 8vo. 10*s.*

Part II. The Wealden Flora. Part II. Gymnospermæ. Pp. viii., 259. 9 Woodcuts and 20 Plates. [With Alphabetical Index, Explanations of the Plates, &c.] 1895, 8vo. 15*s.*

Part III. The Jurassic Flora. Part I. The Yorkshire Coast. Pp. xii., 341. 53 Woodcuts and 21 Plates. [With Alphabetical Index, Explanations of the Plates, &c.] 1900, 8vo. 1*l.*

Catalogue of the Mesozoic Plants in the Department of Geology, British Museum—*continued.*

Part IV. The Jurassic Flora. II.—Liassic and Oolitic Floras of England (excluding the Inferior Oolite Plants of the Yorkshire Coast). Pp. xv., 192. 20 Woodcuts and 13 Plates. [With Alphabetical Index, Explanations of the Plates, &c.] 1904, 8vo. 10*s.*

Catalogue of the Fossil Plants of the Glossopteris Flora in the Department of Geology, British Museum (Natural History). Being a Monograph of the Permo-carboniferous Flora of India and the Southern Hemisphere. By E. A. Newell Arber, M.A., F.L.S., F.G.S. Pp. lxxiv., 255 : 51 Text-Figures and 8 Plates. [With Bibliography and Alphabetical Index.] 1905, 8vo. 12*s.* 6*d.*

GUIDE-BOOKS, Etc.

A General Guide to the British Museum (Natural History), Cromwell Road, London, S.W. Twelfth Edition. With 59 woodcuts, 2 plans, 2 views of the building, and an illustrated cover. Pp. x., 117. 1909, 8vo. 3*d.*

Guide to the Specimens illustrating the Races of Mankind (Anthropology), exhibited in the Department of Zoology, British Museum (Natural History). [By R. Lydekker, F.R.S.] Illustrated by 16 Figures. Pp. 31. 1908, 8vo. 4*d.*

Guide to the Galleries of Mammals (other than Ungulates) in the Department of Zoology of the British Museum (Natural History). Eighth Edition. Pp. 101. 52 Woodcuts and 4 plans. Index. 1906, 8vo. 6*d.*

Guide to the Great Game Animals (Ungulata) in the Department of Zoology, British Museum (Natural History). Pp. 93. 53 Text and other figures. With list of Horns, Antlers and Tusks, and Index. 1907, 8vo. 1*s.*

Guide to the Elephants (Recent and Fossil) exhibited in the Department of Geology and Palæontology in the British Museum (Natural History). [By Dr. C. W. Andrews, F.R.S.] Illustrated by 31 text-figures. Pp. 46. 1908, 8vo. 6*d.*

Guide to the Specimens of the Horse Family (Equidæ) exhibited in the Department of Zoology, British Museum (Natural History). [By R. Lydekker, F.R.S.] Pp. 42. 26 Figures. 1907, 8vo. 1*s.*

Guide to the Domesticated Animals (other than Horses) exhibited in the Central and North Halls of the British Museum (Natural History). [By R. Lydekker, F.R.S.] Illustrated by 24 Figures. Pp. 55. [With table of Contents, List of Illustrations, and Index.] 1908, 8vo. 6*d.*

Guide to the Whales, Porpoises, and Dolphins (order Cetacea) exhibited in the Department of Zoology, British Museum (Natural History). [By R. Lydekker, F.R.S.] Illustrated by 33 Figures. Pp. 47. [With Index.] 1909, 8vo. 4*d.*

Guide to the Gallery of Birds in the Department of Zoology, British Museum (Natural History). [By W. R. Ogilvie Grant.] Second Edition. Pp. iv., 228. 25 Plates, and 7 Illustrations in text. [With Index.] 1910, 4to. 2*s.* 6*d.*

Guide to the Gallery of Birds in the Department of Zoology, British Museum (Natural History). [By W. R. Ogilvie Grant.] :—

Part I. General Series. Pp. 149. [With Index.] 1905, 4to. 6*d.*

Part II. Nesting Series of British Birds. Second Edition. Pp. 62. 4 Plates. [Index.] 1909, 4to. 4*d.*

Guide to the Gallery of Reptilia and Amphibia in the Department of Zoology of the British Museum (Natural History). [By R. Lydekker, F.R.S.] Illustrated by 76 text and other Figures. Pp. iv., 75. [With Table of Contents.] 1906, 8vo. 6*d.*

Guide to the Gallery of Fishes in the Department of Zoology of the British Museum (Natural History). [By Dr. W. G. Ridewood.] Illustrated by 96 Figures. Pp. v., 209. [With Preface by Sir E. Ray Lankester, Table of Classification, and Index.] 1908, 8vo. 1*s.*

Guide to the British Vertebrates Exhibited in the Department of Zoology, British Museum (Natural History). [By W. P. Pycraft.] Pp. iv., 122. 26 Text-Figures, 1 Plan. [With Index.] 1910, 8vo. 1*s.*

Guide to the exhibited series of Insects in the Department of Zoology, British Museum (Natural History). By C. O. Waterhouse. Second Edition. Pp. 65 : 62 text- and full-page Illustrations. [With Table of Contents and Index.] 1909, 8vo. 1*s.*

Guide to the Crustacea, Arachnida, Onychophora and Myriopoda exhibited in the Department of Zoology, British Museum (Natural History). (By W. T. Calman, D.Sc., A. S. Hirst, and F. J. Bell.) Pp. 133 : 90 Text-Figures. [With Table of Contents and Index.] 1910, 8vo. 1*s.*

Guide to the Shell and Starfish Galleries (Mollusca, Polyzoa, Brachiopoda, Tunicata, Echinoderma, and Worms). Department of Zoology, British Museum (Natural History). Fifth Edition. Pp. iv., 133. 125 Woodcuts, Plan and Indexes. 1908, 8vo. 6*d.*

Guide to the Coral Gallery (Protozoa, Porifera or Sponges, Hydrozoa, and Anthozoa) in the Department of Zoology, British Museum (Natural History). Second Edition. Pp. [iv., 8] 73. 90 Illustrations, Plan and Index. 1907, 8vo. 1*s.*

A Guide to the Fossil Mammals and Birds in the Department of Geology and Palæontology in the British Museum (Natural History). Ninth Edition. [By A. S. Woodward, LL.D., F.R.S.] Pp. xvi., 100. 6 Plates, 88 Text-Figures. [With List of Illustrations, Table of Stratified Rocks, and Index.] 1909, 8vo. 6*d.*

A Guide to the Fossil Reptiles, Amphibians, and Fishes in the Department of Geology and Palæontology in the British Museum (Natural History). Ninth Edition. [By A. S. Woodward, LL.D., F.R.S.] Pp. xviii., 110. 8 Plates and 116 Text-Figures. [With Table of Contents, Lists of Illustrations, Geological Time-Scale, and Index.] 1910, 8vo. 9*d.*

A Guide to the Fossil Invertebrate Animals in the Department of Geology and Palæontology in the British Museum (Natural History). [By F. A. Bather, D.Sc.] Second Edition. Pp. x., 183. 7 Plates and 96 Text-Figures. [With List of Illustrations, Geological Time-scale, and Index.] 1911, 8vo. 1*s.*

List of British Seed-plants and Ferns exhibited in the Department of Botany, British Museum (Natural History). [By A. B. Rendle, D.Sc., F.R.S., and J. Britten, F.L.S.] With table of Sequence of Orders, and Index of Genera. Pp. 44. 1907, 8vo. 4*d.*

Guide to Sowerby's Models of British Fungi in the Department of Botany, British Museum (Natural History). Second Edition, revised. By Worthington G. Smith, F.L.S. Pp. 85. 91 Woodcuts. With Table of Diagnostic Characters, Glossary, and Index. 1908, 8vo. 4*d.*

*Guide to Mr. Worthington Smith's Drawings of Field and Cultivated Mushrooms, and Poisonous or Worthless Fungi, often mistaken for Mushrooms, exhibited in the Department of Botany, British Museum (Natural History). Pp. 24 : 2 Plates, containing 28 coloured figures ; 4 text-Figures. 1910, 8vo., 1*s.*

Guide to the British Mycetozoa exhibited in the Department of Botany, British Museum (Natural History). [By Arthur Lister, F.R.S.] Third Edition, revised. Pp. 49. 46 Woodcuts. Index. 1909, 8vo. 3*d.*

A Guide to the Mineral Gallery of the British Museum (Natural History). Eleventh Edition. Pp. 32. Plan. 1911, 8vo. 1*d.*

The Student's Index to the Collection of Minerals, British Museum (Natural History). Twenty-fourth Edition. Pp. 36. With a Plan of the Mineral Gallery. 1911, 8vo. 2*d.*

---

* The plates may be had separately in one sheet mounted on linen and varnished. Price 1*s.*, or 1*s.* 2*d.* post free.

An Introduction to the Study of Minerals, with a Guide to the Mineral Gallery of the British Museum (Natural History). By L. Fletcher, M.A., F.R.S. Thirteenth Edition. Pp. 123. 41 Woodcuts. With Plan of the Mineral Gallery and Index. 1910, 8vo. 6*d.*

An Introduction to the Study of Rocks and Guide to the Museum Collection. Fourth Edition. By L. Fletcher, M.A., F.R.S. Pp. 155. [With Plan of the Mineral Gallery, Table of Contents, and Index.] 1909, 8vo. 1*s.*

An Introduction to the Study of Meteorites, with a List of the Meteorites represented in the Collection. By L. Fletcher, M.A., F.R.S., &c. Tenth Edition. Pp. 120. [With a Plan of the Mineral Gallery, and an Index to the Meteorites represented in the Collection.] 1908, 8vo. 6*d.*

Special Guides.

No. 2.—Books and Portraits illustrating the History of Plant Classification exhibited in the Department of Botany. Second Edition. [By A. B. Rendle, M.A., D.Sc., F.R.S.] Pp. 19. 4 Plates. 1909, 8vo. 4*d.*

No. 3.—Memorials of Linnæus: a collection of Portraits, Manuscripts, Specimens, and Books exhibited to commemorate the Bicentenary of his Birth. [By A. B. Rendle, M.A., D.Sc.] Pp. 16. 2 Plates. 1907, 8vo. 3*d.*

No. 4.—Memorials of Charles Darwin: a Collection of Manuscripts, Portraits, Medals, Books, and Natural History Specimens to commemorate the Centenary of his Birth and the Fiftieth Anniversary of the Publication of "The Origin of Species." (Second Edition.) [By W. G. Ridewood, D.Sc.] Pp. vi., 50. 2 Plates. 1910, 8vo. 6*d.*

No. 5.—Guide to the Exhibition of Animals, Plants, and Minerals mentioned in the Bible. Pp. vii., 74. 7 Text-figures. 1911, 8vo. 6*d.*

Instructions for Collectors.

Handbook of Instructions for Collectors, issued by the British Museum (Natural History). With Illustrations. Third Edition. Pp. 144. Index. 1906, 8vo. 1*s.* 6*d.*

Instructions for Collectors :—

No. 1.—Mammals. Fourth Edition. Pp. 9. Text illust. 1911, 8vo. 3*d.*

No. 2.—Birds. Fourth Edition. Pp. 10. 5 figures in text. 1908, 8vo. 3*d.*

No. 3.—Reptiles, Batrachinians, and Fishes. [Third Edition.] Pp. 12. 1903, 8vo. 4*d.*

No. 4.—Insects. Fifth Edition. Pp. 11. Text illust. 1911, 8vo. 3*d.*

No. 5.—Diptera (Two-winged Flies). Third Edition. Pp. 16. Text illust. 1908, 8vo. 3*d.*

No. 6.—Mosquitoes (Culicidæ). [Third Edition.] Pp. 8. 1 Plate, 1 figure in text. 1904, 8vo. 3*d.*

No. 7.—Blood-sucking Flies, Ticks, &c. By E. E. Austen. Third Edition. Pp. 24 : 13 figures in text. 1907, 8vo. 3*d.*

No. 8.—Spiders, Centipedes, &c. Second Edition. Pp. 4. 1906, 8vo. 3*d.*

No. 9.—Soft-bodied and other Invertebrate Animals; Shells of Molluscs. Third Edition. Pp. 18. 1909, 8vo. 3*d.*

No. 10.—Plants. Fourth Edition. Pp. 10 : 3 figures in text. 1909, 8vo. 3*d.*

No. 11.—Fossils and Minerals. Third Edition. Pp. 8. 1906, 8vo. 3*d.*

British Museum (Natural History),
Cromwell Road,
London, S.W.
November, 1911.

LONDON:
PRINTED FOR HIS MAJESTY'S STATIONERY OFFICE,
By DARLING & SON, Ltd., 34-40, Bacon Street, E.

1911.

Harvard MCZ Library
3 2044 066 326 729

Please scan under barcode:
39088008219750